```
|-- .git/
    |-- COMMIT_EDITMSG
    |-- FETCH HEAD
   -- HEAD
    -- ORIG_HEAD
    |-- config
    |-- ... (7 more files)
    -- hooks/
       |-- applypatch-msg.sample
       |-- commit-msg.sample
       |-- fsmonitor-watchman.sample
       -- post-update.sample
       |-- pre-applypatch.sample
       |-- ... (9 more files)
   -- info/
       -- exclude
   -- logs/
       -- HEAD
       -- refs/
           |-- heads/
               |-- main
           -- remotes/
               -- origin/
                   -- main
   |-- objects/
       |-- 00/
           |-- 463adbbf530f0db9ad41aab6e4fe5378a16e03
            -- 5cffb3ff79d58f26bf63adffaeb2ee4d071b10
           -- aeb5f5a066bf7a404b63d8c39232efd2453d8b
           |-- f2c9f7659cf99a0ebd7034acc89d93738f8f8d
           |-- fb165880fe67c7aac00a3b7baaeaa4691fc042
       |-- 01/
           |-- 4b687952e6e5d483bf949f411cfa00367db7ac
       |-- 02/
           -- 23812a881cfbd48823443d32ab730e404eb222
           |-- 83a1a6a88e7b526eb7cfd796fa0dc29c7b49e2
           |-- 9b6a8726163b9f3191d910509eb69f6a8b04ee
       |-- 03/
           -- 266e81c92df3e5958f8d42ed013ffa01b1ad6c
           -- 543726ee1a88f217d7a0cfb1c82e9f95beaf2c
           -- 89da99c3589e5fa07a09240657753cc2bcc9c7
       -- 04/
           |-- 184fd7026c0c1a9dec477447c3682a5234a190
           -- 69001ea9038e376a39ecebf031a43d90123eec
           -- b8ca034d6d5f21647e07fa93b27d78623582c7
       |-- 05/
           -- 4248326d315ff4188c5eff61c8a0fe5d1a75c1
            -- f5f4758740fcda5569bd4c63f4a9563ace1e62
           -- f94a7962c99528fe1dce1adcd9d2311e92c812
       I-- 06/
           -- a4a498702c2edd155e2cf14ba55671b0bae6a2
       |-- 07/
           -- 051c080984a5585334b97b7afc3ca318ad32dc
```

```
-- 49a453ddc219ee865441e37c0ad4148e93487a
    |-- 8455788a2faf44146bcd64a9a6fd0ce08675a1
    -- e69fca336cc2be6c4f49570c4ddfbd8847139b
|-- 08/
    -- lab16331c51af9f0ea2ce1a8e30419cb097bdc
    -- 28fed332b8d1dfe7505cca791c56bf02ddf5e8
    -- 3445f3511f9861eb6bef1c1783f19ad1a6e754
|-- 09/
    -- 2c63e4300f95c6d9abcfcc45516823054d1d77
    -- c9e2e2d791b88c533029e6cfd2c497ec67bc3f
|-- 0a/
    |-- 17059dc66bbc941d5a88233d676f1d36ae9d3f
I-- 0b/
    |-- 13e1fcf23e5537c69deba07afb8b175a5aca6e
    -- 4ee2f6c6d9baa051beb9f1639f4cecc7baf28c
|-- 0c/
    |-- 375fff30122fb1e8fa99b7b7cf43eff6afc881
    -- 6ef55616bab00e448c4fdbf959511d2bf0ba14
    |-- 779271754ea440ebc4be06ca6e677b7ff32be4
    -- fd48f41c38b433d10112f07a36c564fb3bbc3b
|-- 0d/
    -- b4ca4b4d25d68a4497220353592645ca4f71bf
|-- 0e/
    -- 00ebb105e98b717f172add56293506d0a45fe3
    -- 4321abffed62ffa2f86eff6eec387cec5ef947
    -- 596e4140c1f8d8077eda13fcbbb670105885a9
    -- ed295f31f94a407fb5dec37032af544bb03231
|-- Of/
    -- eecff63762fc3d5ade801254a84ab87656a221
    -- fc28aea6a8586eaf8d4f897df35b4ca1263e72
|-- 10/
    |-- 118aa7fa98e8b8409ca9f8d2ce2b5803a42c97
    -- b99a5b0677c56ee8fb630b6cd932db9aa09f78
    -- c84295f389c335e05bd8ba24407f509bb3e410
    -- ff67eabf1f85e49addfbe3829091f6adec2943
|-- 11/
    -- 2d372e72a687a51a9450b87c26fd3e8182e87f
    |-- 56de8ee28ec765fa49b9f88225177d0b48c30d
    -- a14cdc9f10aaffe5cfe1cc2f88447fa86d82af
|-- 12/
    -- 1b9742f9a024114f7c57a4afb9c7b8fc7ee92d
    |-- 8ae82fa89a7ce84dcd9cbc5edaeaecb75a2518
    -- aeb97725dbf57ba3bf22937c14b7f1c19337a0
    -- bf4d150b28f7e01c8235387df5e14b1b780d11
|-- 13/
    |-- 25064fb15f81258d966ad6aa58e575aae4113a
l-- 14/
    -- 0ef25bddb3f1679a607ab2e3cebdf82e19bea0
    |-- 28690172c75b70440cfa7d6b511326e6a8050b
    |-- 375a7b575a5c0185cda5fa85b248c6183b89a1
    |-- 9d6219c8ac29b515c1a70198d8c62db2086d06
    -- df805ffaed15996e049f31f7dfa89e854b2999
    |-- ... (1 more files)
```

```
|-- 15/
   -- 3829a6e80f4c6c7220cd539182761d7b1a61e6
    |-- 8326841c148d23bef5732a35a5bfd95dec81a4
   -- 94c247b6c74f5ee6c8aaab7e4e7c9ba75dba35
    -- a2a57e74b3894920dc5150f6c3c4b33ae24585
l-- 16/
   -- 591cd11bae44c90f161710fe46cf7a2203ab35
   -- c381f7fb2c4d8220ad181c4b1ddb84ca01b157
|-- 17/
    |-- bleaa5d3b2b360316eccc6fe5192a8736d56fd
   -- fa5b6d7c80f92c8fa9df954c5e002222e43b60
|-- 18/
   -- 146a1a0abdd9a45629f551c660aa11615c4a70
    -- 17672384e0a532ab5c43cdab2b02900e66853b
   -- 651f71ed4852b25c07a0a363bb625868954ac9
|-- 19/
   -- 3d335d7d6bef55d9c61aa77f69c1bc45e3e3c2
|-- 1a/
   |-- 997f07505c410f18684044b3354a2eba7a7d90
-- 1b/
   |-- 632bffbc20bf5fc8a2d227a6d6b08a5dd8226e
    -- bb05aa4bbea4566d771858355bf227b3f219b8
   -- f76a303796480b02e172d041a25c9e0838b91a
-- 1c/
   -- 9b107a2d78b3892dae8312e1f063c26ab0e126
|-- 1d/
    -- 1553673cfae57040a164c3a411ed0fc7fd9af3
    -- 9d9585afaf91bd0aa951d41587524a6c063bb0
    -- a6311fe69a7790237f393a922b374496691b31
    |-- bbe91fede18f88309faa48a4a8ee1ed6205a58
    -- e6a8c95e46db25bff871d8f001b04088ee5922
|-- 1e/
   |-- 5d144338d80b7b86019e038a9d6ddd8e5db546
|-- 1f/
   |-- 4004999dc97887d448a7ad43a88960c36709fa
|-- 20/
   |-- 153e8503971eca9e860594d1506166259ca928
   |-- 513779c99145751462c2fe0e548f0a4869e991
    -- 99827fd96f7f38562cad18fe8663a3c9b91d95
    -- f1b82be7655f2b39de5438dc3d048da70a0d40
    |-- fbc668cc03f1f44792a2acd37fa6e6fbedeeba
|-- 21/
    -- a6f8589ae71e1e381a553d0f0210e86abb0ea3
    -- c057287af72c174e29d819a26fd8f8c5c14c34
|-- 22/
    -- 5c835a926cd4b3f2fc8a290aebb88e9fa00386
    |-- 8e0e6ff376b0501ad5a8579839442c1289a96c
    -- dee924847d606de052fedcd5702b70fe4f9599
|-- 23/
   |-- bf88178949ca05893567c4a9c6d0cc23079938
|-- 24/
    -- 328becf5441f3fc066811136b7af2d0ec6e211
    |-- 5169b83eb8df18bd0a11b6b6c78831c80718a9
```

```
-- 5e50274fe307a55a4945d408a88c1ecfa38a43
    |-- 79a6d4c21433b147e3fe2b7676452d76c715b2
    |-- 80fc09d4f6fd526b23e134cebbbf1fa983b7c5
   |-- ... (4 more files)
|-- 25/
    |-- 519a866b3050ea81717e2343f92c6b0a277fd1
|-- 26/
    -- 4bef0224eb7e1619efc5a80fb7a6ccc9af1c1a
|-- 27/
    |-- 5fcb5d2a055ec4c0cfc117e1df3dda7c09007c
|-- 28/
    |-- 27a49e9bc8521a6a1df01d45c195fb7e7116a6
    -- 3cf68140c80da28a6c40571f563abcc9a38f7d
    |-- 720f02a1a66aff0c89bd58312fad5a5a6fd00f
    -- 814a54c36a2cdfb597162f9a7b7099b855d4f5
    -- cae798fe9da8f28f8b0782e29def7cc7fdba7b
|-- 29/
    -- a4ff7a2df774e1ec2382cd892833790028ceef
   -- e3a2f4d7d1ca63fed92c55cf8e8350aad1f1b2
|-- 2a/
   |-- 0b15ac510d3e290e4d167f62719ed60725aebc
    -- 51077b3dbfaa06f5bebe58a14bf31856997931
   -- 700b4b0d5c2c5b6b0530f49d9b930b9ae16688
|-- 2b/
    |-- 5869956c1b6f2a5a187a52c5ea29f9261bdd01
|-- 2c/
   |-- 24970cfe5b81fcd46c86250714388cfcd79a0c
|-- 2d/
    -- 2303ca5204edf30aebf8bb1b517f0dc1040493
    |-- 3d9df0298c2c31b8517449ea58fd2b5688dbd5
    -- 586fc6726bb9abfe9a169873ee931c587a296c
    -- a8a0ee0ea704dafc29740aef7bb3f3945b5ea1
|-- 2e/
   -- f27d4eaead863931e9e9a4fdf6381a10df4622
|-- 2f/
   |-- 9d3aced5690d7a49e8bd35ea9445fce75d1922
    -- cb4962e6a5762103438f1e8e5ab2731966df8f
|-- 30/
   -- c5b9ab2bc8bcc2a90b5bc2d3fd6681cbee268f
    -- c729c012d270e7246481d544aa30ea51d86c76
|-- 31/
   -- c8160fdf4cc3276018938273a8a2d9a28cbfc3
   -- efc32a421a8a15ad66e6072d924dc7a5693beb
|-- 32/
   -- 2c4c684e6a168292a5cbb960b126c0e9094702
    -- d09c31589cabcb3962cd03875d74eaf373bda6
    -- eca08e142bdb0ec12073b426a1defd88333d9b
|-- 34/
   |-- 54c44f8fa6e838ef963482e5d8e355f8c1a7ac
|-- 35/
    -- 4c3ab3ebf5cb51698003f2a13bb083f61a2b5b
    -- f8b5ff86022265d9aa2ebc5bb6cc7a7786eff1
|-- 37/
```

```
-- f059a4466cf920c24dbeec0b928e4df454b16d
|-- 38/
    |-- 221687e3f84cbbb1b3662028dc7b0be9ddbfca
    -- 5e7bf19cc2b08606ae5ef1f2dd899b71c728ec
    -- a0a11e58186486eaae8dd5d721cf6b851b6400
|-- 39/
    -- 3eac57a680d8916c2747b5c437aa6d67fd37f4
    -- 8092e663f4c9ec459ded1633240d91d8544e90
|-- 3b/
    -- 6eec3ffa6bfd808e6d8efe5b50920b8580af6b
    -- bf8c2e3e39e381fdaf785de169d11ceadb54e9
|-- 3c/
    |-- 14df7f76cd58793696456a48ef57444b806ceb
|--3d/
    -- 7ca0c46d4f0942eb64f663b8d5f3ea1d09a77e
    -- de31f7e1bb6e92ea50843995522780a99e6519
I-- 3e/
    -- 4be8e74dc7a829e072bdd1f3508056e4bda338
    -- fb4b1d54861158b647a37d74c232bfda4f5e09
|-- 3f/
    |-- 1901afb18b5c2c46410b73e16641bd0ec83bd9
    |-- 4ac0ec6c86df1d0e69d1c85e9bfe9511f30a37
    -- e2663bc7c65e308e31bbd9c7124b75c50d6b3d
    -- e4255527ef2f845e095a3a562579e263492a07
|-- 40/
    -- 9fc6f85aed3836ab1c73e43bdb4fc6c4e9a41b
    -- da7a93058792f25cbc432bbe9c96429ff477a4
|-- 41/
    -- 0604b0f9ae316830f7ecc4d9094bc371ac89f2
    |-- 6c5b409b6c83ea132771360f0e0e7ecfdb95fd
    -- 8c7e7f3cd40e253307cece7e20fa5d641dd2f0
    -- 99085ac2b0f81fdb723480991910e74f0e6347
    -- e845dbf660976b87f897054433dad8e69966c9
|-- 42/
    -- f30503d596bb5b5e6d859b5e62b1c79b62324c
|-- 43/
    -- 6eddbb5727f21f184f7837e258aa824392130d
    |-- 702dabf8c05cbc6451fcc0e4109a8d1b175c40
    -- 728ca626f72763f937db52a5eedbbe59ce4f37
    -- c99d1c3cd3b258952d0a197975947bb242a267
    -- f3cdb0783dec3fc57fceb0352744b73ad9f6c7
|-- 44/
    -- 26ffa445f16044a2b2a4a8cca15a92ba8a0e7a
    -- d178f14a7e81433eb1eaf87f4f9526963f9fc3
|-- 45/
    -- 307cdd92ed772f6fbbaac28025e5ca0f0fd89a
    -- 5a440afd2bbd7854669e0c3f266f5788abf320
    -- 77e22a1ae74cce5d0f993e27e762d9a27f7c95
|-- 46/
    |-- 6274fdfa5a402db4a6fbe025d170aaaf5e12d9
    |-- 9a556cd57fa08732f065ba69cb86244b00af9d
|-- 48/
    |-- 12686dcf93785794ff332bba7c3ec0599f6d32
```

```
|-- 49/
    |-- 616a9bb8b5d22c86333b3de77390ee8b0883fc
l-- 4a/
    |-- d9af21191aad45c4b3b3397120a2d43875ca35
|-- 4b/
    -- 149540099f496f476ae8f85889abe3c36286a9
    -- 25535a293b87ac5ad8833e6a9ff9d1349b42ca
    -- 2ecfe138836db2d92bcfd970a52f977068d64b
    -- 4653aa064826f284744ec5c38aa11ccec4e437
    -- 734fc3e399f3eb1572ac97c35703ecd81db36d
    |-- ... (3 more files)
|-- 4c/
    |-- 8d0f9d41f404c89bbe5f80d41fb9443bb73e48
    |-- 91ae26e8583adb56befc18e485daa69b7ec0d7
-- 4d/
    |-- 498694d7b5dca356b9af0f1611e6d5b73f593e
    -- 57c6c0615e36e3fb01a262df798333e5dd7fb8
    -- 8783abd3df9e30fb7e64768e8e802296eed483
    |-- ed8d2d0af5835646641ed263cdf755305de0fb
|-- 4e/
    -- 56be7e71d0e2a904e5d0d9f3b9162fe562c341
    -- cc9bfd39e607570bd465b43a6df9e246d37ea0
|-- 4f/
    -- 2c55c1584e26a76d8f79dc8075ba128e251c72
    -- 3f3c5008b64ffa4aba86b5d9f981548cdf5d13
    -- 8d271751e448a0f64a2fd9b18c4b099d7b4b68
|-- 50/
    -- 186be912d006b35a321493f1280b2c203f8916
    |-- 5a6987b560563d757383aea58067fa47fe0d3a
    |-- 9476a1c9c143ee25e0b3fc23de280be41918b0
    -- b82bcc98dd209835ed943c40e277ab327ece93
    -- f8f137326d9a5e9caa66d49e12651877cc6451
|-- 51/
   -- 8615176d1d7bbbb8200ce0f0bec1ff162e8638
|-- 52/
    |-- 8c9d629100cc087a257a8dc766fa3d46efce05
    -- cdf3b8b9af66e3caf84839ead90899977dfebd
    |-- d50a8e64e1838c0191d8f0858c7a1e60f30177
|-- 53/
    |-- 347729a6592fb9d9f1690e595cab8e9c32c56d
    -- c6c4071d5cca3abfc178d52ae84d625e581e16
|-- 54/
    -- 0a9caf1f94d43dad3f4a8196f4f55c055feff0
    |-- 3fc15dbbc9d120340cf30b1b01df7a28384762
    -- c6ac95a436529c9df32d48cba32d1a7ef9429f
    -- fa0ba5a4d733bd143dab23f8014ce8a4dd47db
|-- 55/
    |-- 0909a16e8cae6da57516ab2280dd1380acaed1
    -- 66a7afcbd7f26ed8731d26248bc2e053b07fa8
    |-- f782a47d29c0f1d3c51724b7aa14e971ded9c4
|-- 56/
    -- 2519eb77e571d1bce03bdbd5fdeb4ea98e6312
    -- ad1520e80a8a26dc961d25ababe1f8ad2840c5
```

```
-- 176fb5f965a388214e21e2f5ff4e7fe98a36f3
    -- 30e6288d957adcb13d1364e75b47d192b09e71
    -- 65f44e4de0098ca0536b36a661a305121421cb
    |-- 9647787cf1e254f52c51356f31664c896990e8
    |-- d98d961503a1204dff16d55f600f478e119973
|-- 58/
    -- 6665ea5debe87f0b0a2e510e59a3e84cbaf0b5
    |-- 7f1f476f6c9d8f6a1fc04087fbcba1d8a956fd
    -- c4b6fb11d4f25c52ef15d7d967895693d440e1
|-- 59/
    |-- 2a796779d2e5348da70685b81b99e795b8e8ec
    |-- bb026ccfd2e35a0744d25dfdbb7db56f1872cd
|-- 5a/
    -- 03ba4e31d3cc86d8b5f0441b168aed0a8cb8ba
    -- 2f4af6db546e195562853b1156c74fdad228f4
    -- c49efe8bdd9a254b6e198ee912f0c924c53e3b
|-- 5b/
    -- a127a7d0ec29a357ae1b2991c42290b7697e88
    -- bb87b393a02fbc0bf050f9c2c4fab2983e8a6e
|-- 5c/
    -- 205ce0a8de219d1a2d1615b60cf3c4aa47fc7b
    -- 7afb79c448bd66413279576594f2cec82ea350
    |-- 831c86c3afc0883ae7634b679995d0ffd3ace2
|-- 5d/
    -- 3c770d2ebdd6c94761fa195174e4e637347c82
    |-- 88a9f958cdae21f7867927b744fad495b7855a
|-- 5e/
    -- daee257ef0180e80757653daf280a9f8784c96
|-- 5f/
    -- 0ce0a98229ec89bd26e23cb113253534dfd267
    -- bec68ed74267f24cb5e49977b4417795760989
|-- 60/
    -- 09ef622780cd2656504fcf370cac5c4b6cd5bc
    |-- 2030ff035af5770caec124f828a65f0a9804e9
    |-- 270d2a466fd392206ced5a018c84ba96b938b1
    -- bb9d4520c3fa42b85bccd791f4e7adcc0b82dc
    -- f6988f527e2ffcadc304a8fc9cea0acd5dacd7
    |-- ... (1 more files)
|-- 61/
    |-- 7008908436daeda321f2a338c834d231accad6
    -- b45d5a31b95bcfcd7ccad4e3e868bd322329f1
    -- c532f4762d3075b33b36ac60c14abbee0ec613
    -- fe56941214080ad8ea19b5663bd1dbc220f35a
|-- 62/
    |-- 1dfe2156920adc00fc388893f8acacc755c51d
    |-- 50a7f1650a96fc6bca906874c631f7f54caabf
|-- 63/
    -- a64c094321298c7b1cfef29bd81f1084b73dcb
    |-- b2bdd347af8c3afd9cb07bce7d2a4eb40ac95f
    -- ce3d8f0be66095d5e4be1300be05067bdb0a77
    -- e2d74824bf3d4f2463709a2d2ef036280d702c
|-- 64/
```

|-- 57/

```
|-- 38ca62d7c1c728927a049e4fad0cf672ba0de0
    |-- 6878fbe83d833d4ba1737b2f5b855de1932ee6
    -- e5150795885525981e5e2e20a78c2674cdfee0
|-- 65/
    -- 9d63b9f23f7d3128745eac418593f8ed03e1f4
    -- c5eec5ddc6586c23c75c54dcfaa25d1066d02b
|-- 66/
    -- beacb4746a13487154571cf936e490b16f2326
|-- 67/
    -- 07b47c80fd2ad0f337e5f50a3fc82117e79754
    -- 4528b182cecd1e0154a602bff3d310feaafb56
    -- a7ef6ddc7fbd6509c1191998a255cf1b58aaaf
|-- 68/
    -- 7a1bcf7123c65c95d42dacdfd0f357547f7877
    -- a00957476975d6a97e5ca25d2e5adc80b74f08
    |-- dda6e48b2571b9a9e911a4410126e8414d730b
l-- 69/
    -- 518709bc2cda42788554af7c7b09e7af3a292c
    |-- 882563906b40e7ce595c37edc08998e1586567
    -- 938d522fa476d7f3855a63e77d4c6a0173c0a0
|-- 6b/
    |-- 7fa43ddbf4899fd35882687caad0a7f1f2464b
    -- b4adecddc5fb3a41b4437a23255e61f848b25b
    -- f81a05637789647ae197cc60e31f4cc064cd76
|-- 6c/
    -- 8e5140be66838181ca830cdbc1eb83d7071718
    -- c88a3872e695ee3b37de0da976e94077a30c34
|-- 6d/
    -- bd7ea527ba55341d2c5f09250bee2066c7f646
|-- 6e/
    -- 00a9c8d8e2e4779f9d8508470e0a57681c53ee
    -- 8bf80147983f5c4ec48028898c2d237bdd4464
l-- 6f/
    -- 1e3bab2b1eca41db2c620609419909adb09a52
    -- 8f8485fcd456e926fcd936247935f79019858b
|-- 70/
    -- 193c7e603fc039cff63742c1bedc7a435660f4
    |-- 691e5d7d7f08178582da6b115e6acca0bce9c0
    -- c5a93a4bc4cd5a8a198bdc000a25eb560a8107
    -- ef6936b0549d5675fbb5ed0f058f674ac6086c
|-- 71/
    |-- 03caf70eb976f911d5eab320131aabb4756fb2
    -- 20d6348c83b1b8efa993ad8bf2aafffd4536c5
    -- 54d00912e61014a0e3b7b1fe3440e8f89b5c8f
    -- 825b1cf3dd04392a0b5929b4ea9f4f8401aaab
|-- 72/
    -- 5025812d42e503865143d7a1ecb22647e839c7
    |-- 505bcb51aea8287e710dbfcd665ea16c7a11fa
    -- ec935f405444df6a78a4d90112b9b39bffce5e
|-- 73/
    -- le8e0a1bca62b099807eb76d76c82e3822fde2
    -- a3e87357209a280ba02eac684bb684c46a4ac4
    -- a8306e6846aa4e78ef9007add3f7a29b20c983
```

```
|-- 74/
    |-- 027ec96db019fe4a1493817172f69682f5a782
    |-- 10d608e71fe405cf9b86f51ff3e09659614026
    -- 67b8a62ab8aeace7f013496b63e45c70534355
    -- ec16c6626640e41abd72e6289965f215f64dd5
l-- 75/
    -- 55456676d4b5e09a54d4e37455014a1e0ea829
    -- ed804c00f9cff0944da59318729590b96edf79
|-- 76/
    |-- 1f47b89f751cfb558ff9596b5550b6030eaf9e
|-- 77/
    |-- 9f49701e7bdb8452100d1a78a7e4f96dca935b
    -- a4e069b2422b58256cde814d9f0e43d5cf3968
    -- d9fb17138b987cc62a90d72b7b14bf57a17ad4
|-- 78/
    |-- 56572fb7eeb49d25df1084a2236914ee129b11
    -- c48bd0a727f8bc2d48fabfa3c2af69224a0171
|-- 79/
    |-- 8619505acbfd6375ab9d85f5d779d315fba2df
    |-- 979d4d0df33b54f2b0ebd0b8a9c2e963a5724d
    -- bcce9a1267d85093465b4941a3183946d2dcac
    -- f73bf40722b192170ed62b454d20cbefc0877c
|-- 7a/
    |-- 51622de43f023ada7e3b411df0f3106d36f7ad
    -- 66ed9b916313c9c3f22431b20cf6ce45325a06
-- 7b/
    -- 15a77dd93147b70d9da0fce53f8f3592666b8c
    -- 3d5318e18d07bacb87380f095a855b118978db
    -- 806f3c28897d4e722f3d14b362c33b9227415c
|-- 7c/
    -- 1fc91244e999b7a5064b950ce9472c593430a7
    |-- 606d1bcfdc1b7f7fb6c988a87695bd8abad4dd
|-- 7d/
    -- 1b00b7a82e283828292c63e56a7ca01aa04d0e
    -- 2d97fc361754e31865398d5c0c987c04c5627c
    |-- 77959dc819f794635d98542cd305924bf0cd16
    -- a9b2fc8015ae62f5d21c7eb53a6dfb1719fae1
    -- ef917d2c31f7b558ff591405d5dafd58adfe9a
|-- 7e/
    |-- 0ac447f32c9825d7f4b6ff13ac79bb92eb5ef7
    -- 1a76a15112915af413d4538d0e1ced887bf630
    -- 788e22f18a051ceb9cf62b504262e81804a757
    -- 9f1ad772b73238af6aba4f3145c60b5c1d1ff8
    -- c71c97e4ca6ebe552d78d4d227952e2d238568
    |-- ... (1 more files)
|-- 7f/
    -- 49e86d31ed1909e3ad8bcbfe2b5fa600e8e11e
    |-- 55ede0bc6210a70e00812eec7c6ff580e0bb4a
|-- 80/
    |-- 03ce19a53ef6412b75a5431e2cb79b56d4a63d
    |-- 38dcede5a5cc21373cd5a458187bbf72c7e916
|-- 81/
    |-- 3dd9749d274bee763fea99a24b4eb23b5c80e0
```

```
|-- a53a22321f2a8a57698b5790cf243aa14e4757
    |-- bb5f942d827a130a0260366eb8ac77c6accd26
|-- 82/
    |-- f4bc7a018c01f2768b66b3541cf1362aeca58a
|-- 83/
    |-- 0683de8a12f7fc6cb3915af5a688b33fb05cc4
    -- 3db94f600e4c7f3fbefd01896797a60c8a5f8e
    -- 667230f76a5ee7b7684fed4c69eb305b030b3b
|-- 84/
    |-- 58f426836f740b4c01df39059c128bb36a9e76
    -- 93c0236c920f217f1cc44b1937d5031396c4cf
    -- c4854686da69a7518b0de4d77557d603163dc4
l-- 85/
    -- b233885cba6bf1f491c9f507698b7a41121ab6
|-- 86/
    |-- 05bcaedc61ab43b053f23ad7efb7d584559c07
    |-- 33f69fb3699664aae599af00e7770f4b5d5285
    -- 5fac75ce390a34ca4efd16ba9dc0454fe0c837
    |-- d097eefab9796bc1185f036e0a96ff5a4c7eaa
    -- f66d66a47078b93882820a911520285f828efc
|-- 87/
    |-- 11855cfc0ce0992d536034f2f86b74e8a9f4a3
    -- 917f8a1a7c02fc626433b04cad1c482deb78cd
    -- b29719052620ba96996f55d6042910d7fa7495
|-- 89/
   -- a5eb1717d06b6ea70d7a8e63ea1c3bcc00f5de
|-- 8a/
    -- 3ec34d4f0bf3b3f2b28b4d8ce73ca006fb1ab8
    -- f5f0032c8aee941a0cbeb0c03f24c94a2e5672
|-- 8b/
    -- 093748fab9542a086b12a880d35aa9ef521ba5
    -- 2f9cb0812b5fb944a9a3c0d13fb27c1fbbc679
    |-- e27c59020036f1501c9548e9679858ee6ab8b8
|-- 8c/
    -- 25526ebc135f4a6ec1857e330dd789b88d0fc5
    |-- bbd5980a99a29cedf5e4a12bbaeb7680d5009d
|-- 8d/
    -- 95fd59780eda7574886570f33f7acaf2a81135
    -- b7098521aaefdbf2f794b39aaf4fad053c81f0
|-- 8f/
    -- 202f5ed42463a14bb77d3da4c3487cb673605b
    -- b8f110aa8cceab2e2fa6fe2d95ffcae1f9f55a
|-- 90/
    -- 8521a1f4ac424c475dc293ffb17f3294d892bc
    -- 8a0fadd8b4fd1134d50bba933144aa1943f9f0
|-- 91/
    -- 1b388f03c2626bf2907425376021cea017415b
    -- 6b5fc01cd85e6f45f33d2ccdd683e664c329c0
    -- d50c9e4adc4ded5c02b73a83e150675f21a3d6
|-- 92/
    -- 16bd54cfef763b9b87069f142d7c1f7be43b1d
    -- 42ea0c46a03d28e16065c68728694e735e424b
    |-- 76c0ffffff49c2446b3a537dc1bcf0bb4bd06d1
```

```
-- f9b261aa4dccda8f05a8011900fa556ee20b6c
|-- 93/
   |-- 59a9d7a13ac82df12d509ad6727263eaf198a0
    -- 8f32d015c19bfa20bc340f5158daa387a879f0
    -- ae5fbd4560b96ca55eaaf1c1c64f132a7cd3b3
    -- ca68363dd5fc329044bb6f4885560ddd17c583
    -- f8fad96d8a9ebc8cb09d7a6f6b09335be79693
|-- 94/
   |-- 98dfb985a2a422e29aa05645a7ea658a7fecc2
    |-- c74fcbbffc68a47edc897214e8e3d5267209e6
|-- 95/
   |-- cdd962b4249cd304fb4803e79c18f0ca496ccb
l-- 96/
    -- a329641eb0269472c8b597dbc9176fbf55584b
   -- f064924d9381494c30afc0a36f46bb29f9d386
|-- 97/
   -- 3ea082f5952d9286ae9f515ef95306804eaf46
    -- 656eca00e4b3b898769242e4d19bfbfc059a5d
   -- a8b3022f2de70453e1c8488f3a92a530f52df5
|-- 98/
   -- 7234a3c8d73e025f3714b741150f2abc6bb635
    -- e90afa2d526dc8c6277f5c6fd35a45a82dc9e2
   -- ef350fa72519aff948930854d2dc5d6692652b
|-- 99/
    -- ae0b0bea1847fca30d4e61ce61eab79a275196
|-- 9a/
    -- 160382f83cfec0b7bcdc07d6355a31790fb9f9
    -- 9391f47373ac35cd59c28286e1c022a8f64d4d
    -- bafdcbe93f17a1ac95148ff822b31935365473
    |-- cdf1ce408437fd0b9c0a9af87632ea1889a11d
    -- d6415dda288fab45d0742de5ff5cd92c33250e
   |-- ... (2 more files)
|-- 9b/
   -- 28a838c01fc26268b897e2c90586c0600e0adb
    -- ff33aed72f6e90cce6212c1a50df9a79b5917d
|-- 9c/
   -- 5234043d70afbb9d04696391c652a6ab23e3a3
   -- 54c54331dd7afc4fdfdcbcf0cf9f62b6c2139f
    -- 8c7498fb8af82c0144d3c8a360f5b3c5a13d7a
|-- 9d/
   -- 4d9fe2b879a264b1e710426f381dd5c51e5b73
   -- e235d92f911c81edb63d229991163c2e58616e
|-- 9e/
    |-- 24697db01d02f41870dd36b0db844bffb103b7
   -- 25fed3128ec81359d876fe9ad331d86ba09cd4
|-- 9f/
   -- fb78f53ad72e9725a057cb522ca3faeb9b08ae
|--a0/
   |-- 29687a8d5529663afabca9adf5da6dc21b59e7
|-- a1/
   -- dd6628e84f69884bf45151e5affccd146e500f
    -- f60b737a8fda40661699e2d0a41ad02a372ea2
|-- a2/
```

```
-- 143c2366bc29086eb7e83ec5966e3c08f8e2e9
    |-- 1f965325c4a4132745370ce9d948ccd52590fa
    |-- 905c232c0a5173479cbfc4b9777d370b8cf7aa
    |-- 9159c08ea776a7b1edc56dda0e40a324c6c874
|-- a3/
    |-- 3ded5854ef85254f5462940915b2ae0fbe879f
    -- 8f9204fe677502e2ec90777bae78f2c6cbc423
    -- 94204049d814d14dd8a362132f8202fa5aedb8
    -- d0eebd4837c5f49045999812085eab1b1bde43
|-- a4/
    -- 3911f14bcccf962c1572f3d30693606fa3768e
    |-- b41a9d8823a6660dbaf9577b8bd363da573ebd
    -- b8c9187920e2fb4f95a2b89d078924e09c2313
    -- e90b9b21f96360ff7be03c00600f37f122d482
|-- a5/
    |-- 6a12f027eed7b5cfc02f7cdbbf305a9b5f57eb
|-- a6/
    -- 08e9560adf7e27a96645944ae3cbf8c83b87f3
    -- 4136a327fe802c37c1a3ee7a40cd08fe343b21
    -- bc6bee0175356a99b26e0fb6635e803dd475f9
|-- a7/
    -- 0a768ee0ba249727404eb214b20c1fd226c443
    -- 24a4fc8e9c70903fb4ab83f811022e396f8d4e
    -- c59b55aa49287733382fceaf9b5041eb016c35
|-- a9/
    -- 730cc1d575566fbb74eeb5bf4229aebd84d6fc
    -- 7563a9db6b1804ba8b1c44b8cd042c7c3f1580
|-- aa/
    |-- 6cc479f9ea6ac2b831231410388823334b9b03
    |-- b4c44162bd48c942ab95a2459c4228d691b67a
    -- b5ec83be1a260dd6aec665b657de6f2a556861
|-- ab/
    -- 608270a29d41c3b4c987c24b8241f41b6df93f
    -- 6f481b3bad9f21d7087df876297fcf0b8d44c7
    -- c7cb581baffc0210ae222037e5ffe2ccafe051
|-- ac/
    -- 1cf1875ca5b781b88d56dca82cfe7f05a6c793
   |-- 5f8d245ff9ace677ab3cbf86b1c3eb8507e43f
|-- ad/
    |-- 7aaa2fef7cca2f032ba12dc0ca8bdbfb62d8a6
    -- 8069cece3d9ba3e5df7354215dbd8e6eaa4975
|-- ae/
    -- 6a14a55b87a2804ca44d752422c3f317650bf9
|-- af/
    -- f93cc29aa33c941272af945d1cc88a47b5057a
|--b0/
    -- 34dc238873cea73fac544a016e2a9a34383df1
    -- 8a982fa5d55825fa2ff751883fc39229f16eab
    -- a30e7d2c71b5596101e220b7b668d1e84f30e4
|-- b1/
    -- 060979fa28367816979429bf771639ba44c7bc
    |-- 089c039e8422aceb4fc93d65c4ce62206cff29
    |-- 1206472df86c6ad8e2a96346df18d0491b3fd5
```

```
|-- 715702175d30d6e8d59f79e2904b739bd17cfc
    -- a7d14b4f6925ce0485fb5d414217f8f6641cbd
    |-- ... (1 more files)
|-- b2/
    |-- 360059c0e45acbc78de0b08f6b7c8624d9a5bd
    |-- 5054d94d2620ced8c009be8a0a24a6b356c348
    -- b570d46d1cae379e2cc7fde097608002cbc1d5
    -- f0afa7332c0418162c994912ad49d538ac9c43
|-- b3/
    -- 2ae5df0e610b32c25a3c2ea2184be570730e31
    -- 5c72122afee3b0517b69ed665e009f166feccf
    -- f2803cf7ebbff1d513972f741ff9ea057e228a
|-- b4/
    -- 6c933fe91aca5f20502be98102aa12985da407
    -- b9e96b77441d3c0c1c77003599284f6b8c0ef8
    |-- f613c632cbed4d95de8eced10f5f12f61e7900
1 - b5/
    -- b12d209472c8e332a5a5cf1ac3e7b6bc6d14cb
    -- c65d03475778f8d94e664e1180b1047ae16153
    |-- f25d969af065b86294d3ba6d45b043887906d3
|-- b6/
    -- 546404136b729ea0fa37fb9be3583479416617
    |-- edfd0d11282ac2b27469d7ed12f14f7770057d
|-- b7/
    |-- 10ad07809078bdf8a78ff1b21b2d07f7fb8341
    |-- 11156d9d2a449f41009dc178050c35c764e9c8
|-- b9/
    -- 620fe00bfa7b362fe6dc11df3c2db9b6caa69b
    -- 8cb09f4233cdd1a2a27e68cef1ef0cbc1f5e2e
    -- fadf4551e2aab7817d48faf8caf365aad42c98
|-- ba/
    -- 14ba9e032e6ea7de4ec2245899d7b9534fca27
    |-- 8678500701eac92a239ef3676aff55b117b74e
    -- a45ff77b04ea0c052ed123738a18eb2c916503
    -- bf4af71bbb9071e22ad502e6792f6f9f96ec0b
    -- c2106202d32dd93c8306a4fdb12e18c357065b
    |-- ... (1 more files)
|-- bc/
    -- 58d4160a425ede213ec0ef88e7570f9b63f204
    -- bf6ef53f96c21c9d13617e3cd7b181289f2bba
|-- bd/
    -- a513c256edd799a5a8248352f275ac280cf77a
    -- f40ddd46dcbb815bde726891fa62ef78419420
|-- be/
    -- 0c989b2e6fc7172382f9dde1d9b5809536da13
    -- 263a40c89ea6e54b0d92a3542b822cae0acc7a
    -- 45a087695e961c10f3642c60df91270fa28bcb
    -- 85cc3ee1db6bf825e9edc5b10e52c8b88f3b11
    -- c33907a959957c63eb4b670c5d2c49fdfb918a
    |-- ... (1 more files)
|-- bf/
    |-- 60cef84f6453ee3e6c3a002f469823524c0f37
|-- c0/
```

```
-- b31f8d8778bf853690c054851807f07981f944
-- c2/
    -- 3a22266fa0d60555eb34002656165d2a0fb5fe
    -- a512261ca21758c687c355e0f147e49abac3be
    -- e504ece096d534aa12ef3a9f84538285ed62f3
|-- c3/
    -- 00e7561f12bebf8c07e61131948b627f010fcc
    -- 74cdc5c6d489651654c8c5c14f41ce0a0c722b
    -- cc47cd465e7f279cd01a3bb1a0c5fcc867a7db
    |-- cf14ffa0215e1d3ccf7d461eacfae79d15c091
    -- d6b591cd96ce747cdf17f75a36aa08e6171a88
|-- c5/
    -- 2248bf4b28511d1a29a0d0a9ad080104bca27d
    -- 4a68c07bdb8114ef2adcba2c748eab6434c1a8
    -- bab4cc0a5659186c963a7f114b48dfb4fd67e4
|-- c6/
    |-- 3000140d79342441ddce7fdcb46275dcf78e70
    -- a9c5c3c44fbc3bee410709daae11ff90c6ef9c
    -- dbcb70392d0957850b53646f09ea2ac6de23d9
    -- f671bb5b2d78f777237e7904b6f483d6006f2d
|-- c7/
    |-- 1bb086e698b9ec3b221b08ce3757e67ff566e3
    -- e25c03de32f38f701c78f786d36e6a84178ac1
|-- c9/
    -- 72c5c16ceb74b3ea8df626a20ecae934fd5789
    -- 7767ae7c400e01f8101863f4e145fdf3dc0825
    -- 8acdad5f9ee49c5d2c00a0711b9d16264caad6
|-- ca/
    |-- 010574f06e1e9db6542cfbe6426129a6bbcf46
    |-- 5579ce633ef4a20cc0f14f30273a10cb6987a6
    -- c9847e8c164840bc369fec95a0ba5864f06c6e
    -- cfba3c26c12e024d92b31bc645641516a0458a
|-- cb/
    -- 44a945df83d6fe5fae614efa99867813837b1c
    -- b9f3bc3a00e3ad65cb5b7647da8e9258e0b060
|-- cc/
    -- d442c74e204559b10f487598f83194f3caf9e9
    |-- ea30d9baa6e8c5e445b22f719b2b005cc4527a
|-- ce/
    |-- 6fad374660d2e038dc89201a95c8ce6152797d
    -- 95fc494ed4a42c63556d4e316710f23a9ce667
    -- bd2adf76aeee87dceac5b64456a75e622ddd58
    -- f86d5eb366d560e0ccb1c4e270cf9c79be9d41
|-- cf/
    -- 095c9bd2e61440bb8d03ab93cd3bbec371ab4a
    |-- 134af1df641ed02844848b0dba8b478684ab54
1-- d0/
    |-- 59519f7823ecdf26132be68cc879d2324a80c2
    |-- 82ea2ccc8fb5d028fb10d10f77031f7f645ee9
    |-- 843f7f65c39d1bf8f1b304acf3ef3a18d22077
|-- d1/
    -- 757db7aec5448df0d66cb43db2d86e81544fbc
    -- cd048a29d2168698e3cbab1fde3403c982b457
```

```
-- cd3a6afd56a38cdf0ee34f374245067b4f3aac
    -- dab4269c6ff46d0c1b3c7ad062221f7cf61a12
|-- d3/
   -- 44a58d367f92926d31c65de6e770e1f045284c
    -- d8729faf6c7a1a260a27845c9590ece197d95c
    -- e44d65c556bdb68978f0aa45452ba2abf5f793
|-- d4/
    -- adaae8af6b764120f0b4fa60c2e9708597fd76
|-- d5/
    |-- 169f9f841d240fed048aba2df3a38d4c770caf
    -- 25ff7c426d89898e3dd216c138f8b3c6a3f87c
    -- f58d977da5f30255e82eec447e4455b9ac802f
I-- d6/
    -- f665a2110ef99c6f5b6637e23673082dcff301
|-- d7/
    |-- 89e8eebeb9a1f1d0c9bb00eaff0a9b7d1e9ca0
    -- 92ff12c23023df59b4ae209b653676ded3e53d
    -- 98d9f0ec5d4d9adfb1e06c6430d497e299b43f
    -- c4b0c20c1c260d3d83efcbdebf24531495721f
    -- fdec966f4b9bdfcf160738e70ac3a92ac8415f
|-- d8/
    |-- c1525cacac997a8e191711dc1e3109236aeb11
   |-- dcc45705c812f3300049d29239b92789c49e9b
|-- da/
    |-- 201013fff235f15e7fd74a15060cdb99ee7461
    -- 6701f8a762f2efebdacc5946be022d543471d7
   -- 723e3c25c794ef4561a2da2cc7d53b05475384
|-- db/
    |-- 01fd70283899eedefeda801e65d01289a8773b
   |-- 34f4108595ceb4b8a5fe3d50e436419039432c
|-- dd/
    |-- 7f341f456f10dd8a3bae8dd062a7d65de78f8c
    -- f6a80797c97fd0860bf345565c9f97cc8a4ea5
   -- fd6848fcae37fbf4c79c1b944b3fdbdc43ee56
|-- de/
    |-- 4b546499f63c9cff7b8453c878449e8aa6f38a
    -- bf4e5cc98bbb9accdd99576a1112a4ccdcfa68
|-- df/
    -- 71288b802eb5afa90bf8b7f4c96b7ce55bb2e7
    -- 7843698e92c9658a7a821e91484e9e9b32ccdd
|-- e0/
   |-- blad4db12b6c1920c14670aed4125d774d6fac
   |-- be99e769aeaec075917ce91ba69b08e75391d1
|-- e1/
    -- 53da368c8e2833e753ad201081d2bd51a1b29a
   -- a8aef98d159749f7880575a31a573b25231938
l-- e2/
    |-- 39f3adafc40609e17b70c2eba9f9e6f32ebcdb
    -- d70d78389c293f00495c84e1853ddca2fbda70
    -- d8f9fa4259871bd4c0c51fd78d27f0f1bcc032
    |-- ed53c60e08d25cd989a9f418bea6f96077b115
|--e3/|
   |-- 528da2b829cc80e765d14baee1dc79976f05bf
```

```
-- 9c79b7c3d7ed7b202b4f4e5fd139dff4c0d962
    -- c2d5e7beb08232eb62f0e44c0ea05b84e30f8f
I-- e4/
    -- 42c4f63b63e25347bb0c789a05cef52489f139
|--e5/
    |-- 702085f0e40355fc75f65c8cd2e7230d181d59
    -- d2ffa92a0d7c265821b0489d567bc0be511305
    -- ec52473f56a44543aba60d997a753218d11c2c
|-- e6/
    |-- 3e3505646abf69d5f4d6ae922c2ce29849f8cd
    -- 9de29bb2d1d6434b8b29ae775ad8c2e48c5391
    -- a2728171e51d00dc523ff104268849a1ddd9d2
    -- f9df1892415da571437b659e52eb6738e91961
|--e7/
    -- 3cac8d2938cd686a9ef610451a20039c65be5a
    -- 6bb4188e1d4f40293bc5a67733490a40936bb2
    |-- 7213a21d2b183a72875e393d490771fa5eab7d
    -- c199eb8674eee9fa6e6f80eefa20e7438c8b9c
|-- e8/
    |-- 242255c2f62ca25214a468ca2779f70e079ba3
    -- 9ccf176c75206a40f3c565fb4da50173f6970d
    -- cd4a0f299678156683cabae134ec1746da50c4
l-- e9/
    |-- 45da67cfa4dc41567e43b7613a725023760e5f
    -- 850cf4c3c1b663bf4959a571017014e4af3d99
    -- aab99c995557eb9bc91e6b9381d90caccbe05f
|-- ea/
    -- 4a070a40a5e9a108ed72a7e5f5a900ef1010f5
    -- a5797faa9984e95ed5322997bb88709b2e65f5
    |-- c214556c1004c4afef9e3f60d3c42c8eebc91b
|-- ec/
    |-- 0bb84c4b11f89a82dd6f8b5591b65ccd2a1dcb
    -- 3d34aa59f07cac306eeb3505cf65626fdf3a5c
    -- a523d98f31a92c37dcb7af6ff695e927fb99bc
|-- ed/
    |-- 34cc8c44bdfbf8afb4999d9bd89ca13b14fb86
|-- ee/
    -- 0ab11107d28ab5015613ab92d000157c6f068d
    -- 0e7888f168ca1697b1ffe062294dd659eeaa74
    |-- 18a6967e7aac4e1871085be713a52cc0fc9150
    -- 19ca2ef97c8aaab2fa5124de50b783ea40d422
    -- 461377b09fac5eb30130e0dc93228bf126b10f
    |-- ... (2 more files)
|-- ef/
    -- 66156ced7ddc0f6adc0e449ed09e12eedc7f9b
    -- 8f61c54dfea002420e08efc857d57cb7e6b881
    -- b2f6537401a7ee524df36fffba23c8330006d3
    -- f12a34ee0e62a98eb8c28b4d44b0ae03dfcfce
|-- f1/
    -- 2ab5c6b8758f8d8e729c5d15bff117af53f242
|-- f2/
    -- 058c566631926299a53fd324ab0a5fe8ce242b
|--f3/
```

```
-- 0eac5b65dab7ba0ded18dc82637ca1b65b4680
        |-- 11491029431a1460d4bc3f1f9c8034d8458acf
        -- 89ba5e89143e5935e9c3a4c34391e3ece1427d
        |-- 92d0c790f8cbe0307e926b98b23ab144593b55
    |-- f4/
        |-- 4eabf33add9da49073ad13e3a654d5506642e4
        |-- 8840dfa28cac6f74140d4f6da462f8312aef29
        -- 9435acbef5a21e360aa33ea0ebbe71657aff7e
        -- f6d6395cf5dd0f4008ba569f9e95bb7ee77258
    |-- f5/
       -- 124ebad0eb9d05710ccad78aaeb1eb83c9232e
        -- 7e1926f9b8a2b119b61402d345d782bd1ef258
    I-- f6/
        |-- 7b6679f6843a928fa304f0407adf9dfcabd06a
       |-- 8061f51642989b7626da764ff036d9060e4193
    |-- f7/
       |-- 17a11dba80f3d95f86edd23fe294a27c70181a
        -- 1c234cd63755c42db6c94fcf5285b505221e01
       -- 6dbf23ed2b271bb78990e82701a1f35ebc1c8f
        |-- 87080343d909d375a779a45efb11bca97f3ac0
    |-- f8/
        -- 5e4bde8f70895e3f92f4b7ff36a2a6345b1606
        -- fba9cb2dfbdbf48b87cb7ed4b5af25b8627d30
        -- ff493177e95ac17dfd7eb6a9582510002c525c
    |-- f9/
       -- 77cda6eeff791c167c295560204120a2fabb54
       -- fcbb903d5c1d548332c7dbee7b941b6d66d04f
        -- fe2c82983d6b145df529534fbfe1101cd574e6
    |-- fa/
       |-- 62289157b9051ef357712a9fe45203e5ae82f6
        -- 7af9668ee330371b4914ca9b3aaed312faf629
        -- ab5b1ff34eeeeba1365c9210b8a50c2a6f6d84
    |-- fb/
       -- d1b910812c8c568bbb8121211b7d9585b0265b
    |-- fc/
       |-- 16656120a9fc61ca7c8a1233c671ed03ebff2e
    |-- fd/
       |-- ce1b774dac25541cbe8bcb3ec35831bc14676d
        -- eec185fbf69002c51fe9af9ee26ce6844661ae
    |-- fe/
        -- 2c5f3e40d21e592a99245ff44b8807e48eca0b
       -- a14b876f56a9cfe73e8b6b4e6b8e6bba68aef6
        -- acd8c600c743658614ce8a4d3ec5366dab86af
    |-- ff/
       -- 43f6f09ceb8e29d5b3793c609b479d149bfab9
        |-- bda04021fee5d747c957f5df5a4cd1bf758f13
        -- d9d0642c7210c4e47b9992356f7d29df69b960
    |-- info/
   |-- pack/
|-- refs/
    -- heads/
       |-- main
    |-- remotes/
```

```
|-- origin/
                |-- main
        |-- tags/
|-- .gitignore
-- .venv/
   |-- Include/
   |-- Lib/
       |-- site-packages/
            |-- MarkupSafe-3.0.2.dist-info/
                -- INSTALLER
                |-- LICENSE.txt
                -- METADATA
                -- RECORD
                -- WHEEL
                |-- ... (1 more files)
            |-- PIL/
                |-- AvifImagePlugin.py
                |-- BdfFontFile.py
                |-- BlpImagePlugin.py
                |-- BmpImagePlugin.py
                |-- BufrStubImagePlugin.py
                |-- ... (108 more files)
                |-- __pycache__/
                    |-- AvifImagePlugin.cpython-312.pyc
                    |-- BdfFontFile.cpython-312.pyc
                    |-- BlpImagePlugin.cpython-312.pyc
                    |-- BmpImagePlugin.cpython-312.pyc
                    |-- BufrStubImagePlugin.cpython-312.pyc
                    |-- ... (91 more files)
            |-- PyYAML-6.0.2.dist-info/
                -- INSTALLER
                -- LICENSE
                -- METADATA
                -- RECORD
                -- WHEEL
                |-- ... (1 more files)
            |-- __pycache__/
                |-- isympy.cpython-312.pyc
                |-- pylab.cpython-312.pyc
                |-- six.cpython-312.pyc
                |-- typing_extensions.cpython-312.pyc
            |-- _distutils_hack/
                |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
                    |-- override.cpython-312.pyc
                |-- override.py
            |-- _pillow_heif.cp312-win_amd64.pyd
            |-- _yaml/
                |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
            |-- certifi/
```

```
-- __init__.py
    |-- __main__.py
    |-- ___pycache___/
        -- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- core.cpython-312.pyc
    |-- cacert.pem
    -- core.py
    |-- py.typed
|-- certifi-2025.4.26.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
    -- licenses/
       -- LICENSE
    |-- top_level.txt
|-- charset_normalizer/
    |-- __init__.py
    |-- __main__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- api.cpython-312.pyc
        -- cd.cpython-312.pyc
        |-- constant.cpython-312.pyc
        |-- ... (5 more files)
    -- api.py
    |-- cd.py
    |-- cli/
       |-- __init__.py
        -- __main__.py
        -- __pycache__/
           -- __init__.cpython-312.pyc
            |-- __main__.cpython-312.pyc
    |-- constant.py
    |-- ... (10 more files)
|-- charset_normalizer-3.4.2.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- entry_points.txt
    |-- licenses/
       -- LICENSE
    |-- ... (2 more files)
|-- colorama/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- ansi.cpython-312.pyc
        |-- ansitowin32.cpython-312.pyc
        |-- initialise.cpython-312.pyc
```

```
|-- win32.cpython-312.pyc
        |-- ... (1 more files)
    -- ansi.py
    |-- ansitowin32.py
    |-- initialise.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- ansi_test.cpython-312.pyc
            |-- ansitowin32_test.cpython-312.pyc
            |-- initialise_test.cpython-312.pyc
            |-- isatty_test.cpython-312.pyc
            |-- ... (2 more files)
        -- ansi_test.py
        |-- ansitowin32_test.py
        |-- initialise_test.py
        |-- isatty_test.py
        |-- ... (3 more files)
    |-- win32.py
    |-- ... (3 more files)
|-- colorama-0.4.6.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- licenses/
       |-- LICENSE.txt
|-- contourpy/
    |-- __init__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _version.cpython-312.pyc
        -- array.cpython-312.pyc
        |-- chunk.cpython-312.pyc
        |-- convert.cpython-312.pyc
        |-- ... (4 more files)
    |-- _contourpy.cp312-win_amd64.lib
    -- _contourpy.cp312-win_amd64.pyd
    -- _contourpy.pyi
    -- _version.py
    |-- ... (10 more files)
    |-- util/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- build config.cpython-312.pyc
            |-- bokeh_renderer.cpython-312.pyc
            -- bokeh_util.cpython-312.pyc
            |-- data.cpython-312.pyc
            |-- ... (3 more files)
        |-- _build_config.py
        |-- bokeh_renderer.py
```

```
-- bokeh_util.py
        |-- data.py
        |-- ... (4 more files)
|-- contourpy-1.3.2.dist-info/
    -- INSTALLER
    |-- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
|-- cpuinfo/
    |-- __init__.py
    |-- __main__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- cpuinfo.cpython-312.pyc
    |-- cpuinfo.py
|-- cv2/
    |-- Error/
       |-- __init__.pyi
    -- LICENSE-3RD-PARTY.txt
    |-- LICENSE.txt
    |-- __init__.py
    |-- __init__.pyi
    |-- __pycache__/
        |-- init .cpython-312.pyc
        |-- config-3.cpython-312.pyc
        -- config.cpython-312.pyc
        -- load_config_py2.cpython-312.pyc
        -- load_config_py3.cpython-312.pyc
        |-- ... (1 more files)
    |-- aruco/
        |-- __init__.pyi
    |-- barcode/
        -- __init__.pyi
    -- config-3.py
    |-- ... (31 more files)
    -- cuda/
        |-- __init__.pyi
    -- data/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
        |-- haarcascade_eye.xml
        -- haarcascade_eye_tree_eyeglasses.xml
        |-- haarcascade_frontalcatface.xml
        |-- haarcascade frontalcatface extended.xml
        |-- ... (14 more files)
    -- detail/
        |-- __init__.pyi
    -- dnn/
        |-- __init__.pyi
    |-- fisheye/
```

```
|-- __init__.pyi
|-- flann/
   |-- __init__.pyi
|-- gapi/
    -- __init__.py
    |-- __init__.pyi
    -- __pycache__/
       |-- __init__.cpython-312.pyc
    -- core/
        |-- __init__.pyi
        |-- cpu/
           |-- __init__.pyi
        |-- fluid/
           |-- __init__.pyi
        |-- ocl/
           |-- __init__.pyi
    |-- ie/
       |-- __init__.pyi
        |-- detail/
           |-- __init__.pyi
    -- imgproc/
        |-- __init__.pyi
        |-- fluid/
           |-- __init__.pyi
    -- oak/
       |-- __init__.pyi
    -- onnx/
        |-- __init__.pyi
        |-- ep/
           |-- __init___.pyi
    |-- ot/
        |-- __init__.pyi
        |-- cpu/
           |-- __init__.pyi
    -- ov/
        -- __init__.pyi
    -- own/
        |-- __init__.pyi
        -- detail/
            |-- __init__.pyi
    -- render/
        |-- __init__.pyi
        -- ocv/
           |-- __init__.pyi
    |-- streaming/
       |-- __init__.pyi
    -- video/
        |-- __init__.pyi
    |-- wip/
        |-- __init__.pyi
        |-- draw/
            |-- __init__.pyi
        |-- gst/
```

```
|-- __init__.pyi
            |-- onevpl/
                |-- __init__.pyi
    |-- ipp/
       |-- __init__.pyi
    |-- mat_wrapper/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
    |-- misc/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- version.cpython-312.pyc
        |-- version.py
    |-- ml/
       |-- __init__.pyi
    |-- ocl/
       |-- __init__.pyi
    |-- ogl/
        |-- __init__.pyi
    |-- parallel/
       |-- __init__.pyi
    -- samples/
        -- __init__.pyi
    |-- segmentation/
       |-- __init__.pyi
    -- typing/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
    |-- utils/
       |-- __init__.py
        -- __init__.pyi
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- fs/
           -- __init__.pyi
        |-- nested/
            -- __init__.pyi
    |-- videoio_registry/
       |-- __init__.pyi
|-- cycler/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
    -- py.typed
|-- cycler-0.12.1.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
```

```
|-- ... (1 more files)
|-- dateutil/
    |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- _version.cpython-312.pyc
        -- easter.cpython-312.pyc
        |-- relativedelta.cpython-312.pyc
        |-- ... (3 more files)
    -- _common.py
    -- _version.py
    |-- easter.py
    -- parser/
       -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- _parser.cpython-312.pyc
            |-- isoparser.cpython-312.pyc
        -- _parser.py
        |-- isoparser.py
    |-- relativedelta.py
    |-- ... (7 more files)
    |-- tz/
       -- __init__.py
       |-- pycache /
            |-- __init__.cpython-312.pyc
            |-- _common.cpython-312.pyc
            |-- _factories.cpython-312.pyc
            |-- tz.cpython-312.pyc
            |-- win.cpython-312.pyc
        -- _common.py
        |-- _factories.py
        |-- tz.py
       |-- win.py
    |-- zoneinfo/
       -- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            -- rebuild.cpython-312.pyc
        |-- dateutil-zoneinfo.tar.gz
        -- rebuild.py
|-- distutils-precedence.pth
|-- dotenv/
    |-- __init__.py
    -- __main__.py
    |-- pycache /
        |-- __init__.cpython-312.pyc
       -- __main__.cpython-312.pyc
        |-- cli.cpython-312.pyc
        |-- ipython.cpython-312.pyc
        |-- main.cpython-312.pyc
        |-- ... (3 more files)
```

```
|-- cli.py
    |-- ipython.py
    |-- main.py
    |-- ... (5 more files)
-- filelock/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _api.cpython-312.pyc
        |-- _error.cpython-312.pyc
        |-- _soft.cpython-312.pyc
        |-- _unix.cpython-312.pyc
        |-- ... (4 more files)
    |-- _api.py
    -- _error.py
    -- _soft.py
    -- _unix.py
    |-- ... (6 more files)
|-- filelock-3.18.0.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- licenses/
        -- LICENSE
|-- filetype/
    |-- __init__.py
    |-- __main__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- filetype.cpython-312.pyc
        |-- helpers.cpython-312.pyc
        |-- match.cpython-312.pyc
        |-- ... (1 more files)
    |-- filetype.py
    |-- helpers.py
    |-- match.py
    -- types/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- application.cpython-312.pyc
            |-- archive.cpython-312.pyc
            |-- audio.cpython-312.pyc
            |-- base.cpython-312.pyc
            |-- ... (5 more files)
        |-- application.py
        -- archive.py
        |-- audio.py
        -- base.py
        |-- ... (6 more files)
    |-- ... (3 more files)
```

```
|-- filetype-1.2.0.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- ... (3 more files)
-- fontTools/
    |-- __init__.py
    |-- __main__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- afmLib.cpython-312.pyc
        |-- agl.cpython-312.pyc
        |-- fontBuilder.cpython-312.pyc
        |-- ... (4 more files)
    -- afmLib.py
    |-- agl.py
    |-- cffLib/
        -- CFF2ToCFF.py
        |-- CFFToCFF2.py
        |-- __init__.py
        |-- __pycache__/
            |-- CFF2ToCFF.cpython-312.pyc
            |-- CFFToCFF2.cpython-312.pyc
            |-- __init__.cpython-312.pyc
            |-- specializer.cpython-312.pyc
            |-- transforms.cpython-312.pyc
            |-- ... (1 more files)
        |-- specializer.py
        |-- transforms.py
        |-- ... (2 more files)
    |-- colorLib/
        -- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- builder.cpython-312.pyc
            |-- errors.cpython-312.pyc
            |-- geometry.cpython-312.pyc
            |-- table_builder.cpython-312.pyc
            |-- ... (1 more files)
        |-- builder.py
        -- errors.py
        -- geometry.py
        |-- table_builder.py
        |-- ... (2 more files)
    |-- config/
        |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
    -- cu2qu/
       |-- __init__.py
```

```
|-- __main__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- benchmark.cpython-312.pyc
        |-- cli.cpython-312.pyc
        |-- cu2qu.cpython-312.pyc
        |-- ... (2 more files)
    |-- benchmark.py
    |-- cli.py
   |-- cu2qu.c
    |-- ... (5 more files)
|-- designspaceLib/
   |-- __init__.py
   -- __main__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- __main__.cpython-312.pyc
        |-- split.cpython-312.pyc
        |-- statNames.cpython-312.pyc
        -- types.cpython-312.pyc
    -- split.py
   |-- statNames.py
   |-- types.py
-- encodings/
   |-- MacRoman.py
   |-- StandardEncoding.py
   |-- __init__.py
   |-- __pycache__/
        |-- MacRoman.cpython-312.pyc
        |-- StandardEncoding.cpython-312.pyc
        -- __init__.cpython-312.pyc
        |-- codecs.cpython-312.pyc
   |-- codecs.py
|-- feaLib/
   |-- __init__.py
   -- __main__.py
   -- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- ast.cpython-312.pyc
        |-- builder.cpython-312.pyc
        -- error.cpython-312.pyc
        |-- ... (5 more files)
   |-- ast.py
   |-- builder.py
    -- error.py
    |-- ... (8 more files)
|-- fontBuilder.py
|-- ... (26 more files)
|-- merge/
   |-- __init__.py
   |-- __main__.py
```

```
|-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- base.cpython-312.pyc
        |-- cmap.cpython-312.pyc
        |-- layout.cpython-312.pyc
        |-- ... (4 more files)
    |-- base.py
    -- cmap.py
    |-- layout.py
   |-- ... (5 more files)
|-- misc/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- arrayTools.cpython-312.pyc
        |-- bezierTools.cpython-312.pyc
        |-- classifyTools.cpython-312.pyc
        |-- cliTools.cpython-312.pyc
        |-- ... (30 more files)
    |-- arrayTools.py
    |-- bezierTools.c
    |-- bezierTools.cp312-win_amd64.pyd
    |-- bezierTools.py
    |-- ... (34 more files)
    |-- plistlib/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- py.typed
|-- mtiLib/
   -- __init__.py
   |-- __main__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
|-- otlLib/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- builder.cpython-312.pyc
        -- error.cpython-312.pyc
        |-- maxContextCalc.cpython-312.pyc
    |-- builder.py
    -- error.py
    |-- maxContextCalc.py
    |-- optimize/
        |-- __init__.py
        |-- __main__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- __main__.cpython-312.pyc
            |-- gpos.cpython-312.pyc
```

```
|-- gpos.py
-- pens/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- areaPen.cpython-312.pyc
        |-- basePen.cpython-312.pyc
        -- boundsPen.cpython-312.pyc
        |-- cairoPen.cpython-312.pyc
        |-- ... (24 more files)
   -- areaPen.py
    -- basePen.py
    |-- boundsPen.py
    |-- cairoPen.py
   |-- ... (27 more files)
|-- qu2cu/
   |-- __init__.py
   -- __main__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        -- benchmark.cpython-312.pyc
        |-- cli.cpython-312.pyc
        |-- qu2cu.cpython-312.pyc
    |-- benchmark.py
   |-- cli.py
    |-- qu2cu.c
    |-- ... (3 more files)
|-- subset/
   |-- __init__.py
    |-- __main__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- cff.cpython-312.pyc
        |-- svg.cpython-312.pyc
        |-- util.cpython-312.pyc
    |-- cff.py
    -- svg.py
   |-- util.py
-- svgLib/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
    |-- path/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- arc.cpython-312.pyc
            |-- parser.cpython-312.pyc
            |-- shapes.cpython-312.pyc
        -- arc.py
        -- parser.py
```

```
-- shapes.py
|-- t1Lib/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
|-- ttLib/
   |-- __init__.py
    |-- __main__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- macUtils.cpython-312.pyc
        -- removeOverlaps.cpython-312.pyc
        -- reorderGlyphs.cpython-312.pyc
        |-- ... (8 more files)
    |-- macUtils.py
    |-- removeOverlaps.py
    -- reorderGlyphs.py
    |-- ... (10 more files)
    -- tables/
        -- B_A_S_E_.py
        |-- BitmapGlyphMetrics.py
        -- C_B_D_T_.py
        -- C_B_L_C_.py
        -- C_F_F_.py
        |-- ... (96 more files)
        |-- __pycache__/
            -- B_A_S_E_.cpython-312.pyc
            |-- BitmapGlyphMetrics.cpython-312.pyc
            |-- C_B_D_T_.cpython-312.pyc
            -- C_B_L_C_.cpython-312.pyc
            -- C_F_F_.cpython-312.pyc
            |-- ... (94 more files)
|-- ufoLib/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- converters.cpython-312.pyc
        -- errors.cpython-312.pyc
        |-- etree.cpython-312.pyc
        |-- filenames.cpython-312.pyc
        |-- ... (6 more files)
    |-- converters.py
    -- errors.py
    -- etree.py
    |-- filenames.py
    |-- ... (7 more files)
|-- unicodedata/
   |-- Blocks.py
    |-- Mirrored.py
    -- OTTags.py
    |-- ScriptExtensions.py
    |-- Scripts.py
```

```
|-- ... (2 more files)
        |-- __pycache__/
            |-- Blocks.cpython-312.pyc
            |-- Mirrored.cpython-312.pyc
            |-- OTTags.cpython-312.pyc
            |-- ScriptExtensions.cpython-312.pyc
            |-- Scripts.cpython-312.pyc
            |-- ... (1 more files)
    |-- varLib/
       |-- __init__.py
       |-- __main__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- __main__.cpython-312.pyc
            -- avar.cpython-312.pyc
            |-- avarPlanner.cpython-312.pyc
            |-- builder.cpython-312.pyc
            |-- ... (19 more files)
       |-- avar.py
        |-- avarPlanner.py
        |-- builder.py
        |-- ... (23 more files)
        |-- instancer/
            |-- __init__.py
            |-- __main__.py
            |-- pycache /
                -- __init__.cpython-312.pyc
                |-- __main__.cpython-312.pyc
                |-- featureVars.cpython-312.pyc
                |-- names.cpython-312.pyc
                |-- solver.cpython-312.pyc
            |-- featureVars.py
            -- names.py
            |-- solver.py
    |-- voltLib/
       |-- __init__.py
       -- __main__.py
       -- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- __main__.cpython-312.pyc
            |-- ast.cpython-312.pyc
            |-- error.cpython-312.pyc
            |-- lexer.cpython-312.pyc
            |-- ... (2 more files)
        |-- ast.py
        -- error.py
        |-- lexer.py
        |-- ... (3 more files)
|-- fonttools-4.58.1.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
```

```
-- entry_points.txt
    |-- licenses/
        |-- LICENSE
        |-- LICENSE.external
    |-- ... (2 more files)
|-- fpdf/
   |-- __init__.py
    -- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- fonts.cpython-312.pyc
        |-- fpdf.cpython-312.pyc
        |-- html.cpython-312.pyc
        |-- php.cpython-312.pyc
        |-- ... (3 more files)
    -- fonts.py
    -- fpdf.py
    |-- html.py
    -- php.py
    |-- ... (4 more files)
|-- fpdf-1.7.2.dist-info/
    -- INSTALLER
    -- METADATA
    |-- RECORD
    -- REQUESTED
    -- WHEEL
    |-- ... (1 more files)
|-- fsspec/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _version.cpython-312.pyc
        |-- archive.cpython-312.pyc
        |-- asyn.cpython-312.pyc
        |-- caching.cpython-312.pyc
        |-- ... (17 more files)
    -- _version.py
    |-- archive.py
    -- asyn.py
    |-- caching.py
    |-- ... (20 more files)
    |-- implementations/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- arrow.cpython-312.pyc
            |-- asyn_wrapper.cpython-312.pyc
            -- cache_mapper.cpython-312.pyc
            -- cache_metadata.cpython-312.pyc
            |-- ... (21 more files)
        |-- arrow.py
        -- asyn_wrapper.py
        -- cache_mapper.py
        |-- cache_metadata.py
```

```
|-- ... (22 more files)
    |-- tests/
        |-- abstract/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- common.cpython-312.pyc
                -- copy.cpython-312.pyc
                |-- get.cpython-312.pyc
                |-- mv.cpython-312.pyc
                |-- ... (3 more files)
            -- common.py
            -- copy.py
            |-- get.py
            |-- mv.py
            |-- ... (4 more files)
-- fsspec-2025.5.1.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- licenses/
       -- LICENSE
|-- functorch/
    |-- _C.cp312-win_amd64.pyd
    |-- init .py
    -- __pycache__/
       -- __init__.cpython-312.pyc
    -- _src/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
        |-- aot_autograd/
            |-- __init__.py
            -- __pycache__/
               |-- __init__.cpython-312.pyc
        |-- eager_transforms/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
        |-- make_functional/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
        |-- vmap/
            |-- __init__.py
            |-- pycache /
                -- __init__.cpython-312.pyc
    |-- compile/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
    |-- dim/
```

```
|-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- batch_tensor.cpython-312.pyc
            |-- delayed_mul_tensor.cpython-312.pyc
            |-- dim.cpython-312.pyc
            |-- magic_trace.cpython-312.pyc
            |-- ... (4 more files)
        |-- batch_tensor.py
        |-- delayed_mul_tensor.py
        |-- dim.py
        |-- magic_trace.py
        |-- ... (5 more files)
    -- einops/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _parsing.cpython-312.pyc
            -- rearrange.cpython-312.pyc
        |-- _parsing.py
        -- rearrange.py
    |-- experimental/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- control flow.cpython-312.pyc
            -- ops.cpython-312.pyc
        |-- control_flow.py
        -- ops.py
|-- idna/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- codec.cpython-312.pyc
        |-- compat.cpython-312.pyc
        |-- core.cpython-312.pyc
        |-- idnadata.cpython-312.pyc
        |-- ... (3 more files)
    -- codec.py
    -- compat.py
    -- core.py
    |-- idnadata.py
    |-- ... (5 more files)
|-- idna-3.7.dist-info/
    |-- INSTALLER
    -- LICENSE.md
    -- METADATA
    -- RECORD
    -- WHEEL
|-- isympy.py
|-- jinja2/
    |-- __init__.py
    |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
        |-- _identifier.cpython-312.pyc
        |-- async_utils.cpython-312.pyc
        |-- bccache.cpython-312.pyc
        |-- compiler.cpython-312.pyc
        |-- ... (20 more files)
    |-- _identifier.py
    |-- async_utils.py
    |-- bccache.py
    |-- compiler.py
    |-- ... (22 more files)
|-- jinja2-3.1.6.dist-info/
    |-- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- entry_points.txt
    |-- licenses/
        -- LICENSE.txt
|-- kiwisolver/
    |-- __init__.py
    -- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- exceptions.cpython-312.pyc
    |-- _cext.cp312-win_amd64.pyd
    |-- cext.pyi
    |-- exceptions.py
    -- py.typed
|-- kiwisolver-1.4.8.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    |-- WHEEL
    |-- ... (1 more files)
|-- libaom-93659f31027d44fd40b0eed3e8daaa27.dll
-- libde265-0-e5950ad35a6c4c4e1cb07673a62db546.dll
|-- ... (112 more files)
|-- markupsafe/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _native.cpython-312.pyc
    |-- _native.py
    |-- _speedups.c
    |-- _speedups.cp312-win_amd64.pyd
    |-- speedups.pyi
    |-- ... (2 more files)
|-- matplotlib/
    |-- __init__.py
    |-- __init__.pyi
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
```

```
|-- _afm.cpython-312.pyc
    |-- _animation_data.cpython-312.pyc
    |-- _blocking_input.cpython-312.pyc
   |-- _cm.cpython-312.pyc
   |-- ... (71 more files)
-- afm.py
|-- _animation_data.py
|-- _api/
   |-- __init__.py
   -- __init__.pyi
   |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- deprecation.cpython-312.pyc
    -- deprecation.py
   |-- deprecation.pyi
|-- _blocking_input.py
|-- ... (147 more files)
-- axes/
   |-- __init__.py
   |-- __init__.pyi
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _axes.cpython-312.pyc
        |-- _base.cpython-312.pyc
        |-- _secondary_axes.cpython-312.pyc
   -- axes.py
    -- _axes.pyi
    -- _base.py
    |-- ... (4 more files)
-- backends/
   |-- __init__.py
   |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- _backend_gtk.cpython-312.pyc
        -- _backend_pdf_ps.cpython-312.pyc
        |-- _backend_tk.cpython-312.pyc
        |-- backend_agg.cpython-312.pyc
        |-- ... (30 more files)
    |-- _backend_agg.cp312-win_amd64.pyd
   |-- _backend_agg.pyi
    -- _backend_gtk.py
   |-- _backend_pdf_ps.py
    |-- ... (38 more files)
   |-- qt_editor/
        |-- __init__.py
        |-- ___pycache___/
            |-- init .cpython-312.pyc
            |-- _formlayout.cpython-312.pyc
           |-- figureoptions.cpython-312.pyc
        |-- _formlayout.py
        |-- figureoptions.py
    |-- web_backend/
       |-- all_figures.html
```

```
|-- css/
            |-- boilerplate.css
            |-- fbm.css
            |-- mpl.css
            -- page.css
        |-- ipython_inline_figure.html
        |-- js/
            |-- mpl.js
            |-- mpl_tornado.js
            |-- nbagg_mpl.js
        |-- single_figure.html
-- mpl-data/
   |-- fonts/
        |-- afm/
           -- cmex10.afm
            |-- cmmi10.afm
            |-- cmr10.afm
            |-- cmsy10.afm
            |-- cmtt10.afm
            |-- ... (41 more files)
        |-- pdfcorefonts/
            |-- Courier-Bold.afm
            |-- Courier-BoldOblique.afm
            |-- Courier-Oblique.afm
            |-- Courier.afm
            |-- Helvetica-Bold.afm
            |-- ... (10 more files)
        |-- ttf/
            |-- DejaVuSans-Bold.ttf
            |-- DejaVuSans-BoldOblique.ttf
            |-- DejaVuSans-Oblique.ttf
            |-- DejaVuSans.ttf
            |-- DejaVuSansDisplay.ttf
            |-- ... (35 more files)
    -- images/
        |-- back-symbolic.svg
        -- back.pdf
        |-- back.png
        |-- back.svg
        |-- back_large.png
        |-- ... (46 more files)
    |-- kpsewhich.lua
    |-- matplotlibrc
    |-- plot_directive/
        |-- plot_directive.css
    -- sample_data/
        |-- Minduka_Present_Blue_Pack.png
        |-- README.txt
        |-- Stocks.csv
        -- axes_grid/
            |-- bivariate_normal.npy
        |-- data_x_x2_x3.csv
        |-- eeg.dat
```

```
|-- ... (10 more files)
    |-- stylelib/
        |-- Solarize_Light2.mplstyle
        |-- _classic_test_patch.mplstyle
        |-- _mpl-gallery-nogrid.mplstyle
        |-- mpl-gallery.mplstyle
        |-- bmh.mplstyle
        |-- ... (24 more files)
|-- projections/
   |-- __init__.py
   |-- __init__.pyi
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- geo.cpython-312.pyc
        -- polar.cpython-312.pyc
    |-- geo.py
    |-- geo.pyi
    -- polar.py
   |-- ... (2 more files)
|-- sphinxext/
   |-- __init__.py
    |-- __pycache__/
       -- __init__.cpython-312.pyc
        |-- figmpl_directive.cpython-312.pyc
        |-- mathmpl.cpython-312.pyc
        |-- plot directive.cpython-312.pyc
        |-- roles.cpython-312.pyc
    |-- figmpl_directive.py
    |-- mathmpl.py
    |-- plot_directive.py
   -- roles.py
|-- style/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- core.cpython-312.pyc
    -- core.py
   |-- core.pyi
|-- testing/
   |-- __init__.py
   |-- __init__.pyi
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _markers.cpython-312.pyc
        |-- compare.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- decorators.cpython-312.pyc
        |-- ... (2 more files)
   -- _markers.py
    -- compare.py
    |-- compare.pyi
    |-- ... (9 more files)
    |-- jpl_units/
```

```
|-- Duration.py
            |-- Epoch.py
            |-- EpochConverter.py
            |-- StrConverter.py
            |-- UnitDbl.py
            |-- ... (4 more files)
            |-- __pycache__/
                |-- Duration.cpython-312.pyc
                |-- Epoch.cpython-312.pyc
                |-- EpochConverter.cpython-312.pyc
                |-- StrConverter.cpython-312.pyc
                |-- UnitDbl.cpython-312.pyc
                |-- ... (3 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- conftest.cpython-312.pyc
            |-- test_afm.cpython-312.pyc
            -- test_agg.cpython-312.pyc
            |-- test_agg_filter.cpython-312.pyc
            |-- ... (88 more files)
        |-- conftest.py
        |-- test_afm.py
        |-- test_agg.py
        |-- test agg filter.py
        |-- ... (89 more files)
    |-- tri/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _triangulation.cpython-312.pyc
            |-- _tricontour.cpython-312.pyc
            |-- _trifinder.cpython-312.pyc
            |-- _triinterpolate.cpython-312.pyc
            |-- ... (4 more files)
        |-- _triangulation.py
        |-- _triangulation.pyi
        |-- _tricontour.py
        |-- _tricontour.pyi
        |-- ... (13 more files)
|-- matplotlib-3.10.3.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
|-- mpl_toolkits/
    |-- axes_grid1/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- anchored_artists.cpython-312.pyc
```

```
-- axes_divider.cpython-312.pyc
        -- axes_grid.cpython-312.pyc
        -- axes_rgb.cpython-312.pyc
        |-- ... (4 more files)
    |-- anchored_artists.py
    |-- axes divider.py
    |-- axes_grid.py
    |-- axes_rgb.py
    |-- ... (6 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- conftest.cpython-312.pyc
            -- test_axes_grid1.cpython-312.pyc
        |-- conftest.py
        |-- test_axes_grid1.py
|-- axisartist/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- angle_helper.cpython-312.pyc
        |-- axes_divider.cpython-312.pyc
        |-- axis_artist.cpython-312.pyc
        |-- axisline_style.cpython-312.pyc
        |-- ... (5 more files)
   |-- angle helper.py
   |-- axes_divider.py
    |-- axis_artist.py
   |-- axisline_style.py
    |-- ... (7 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- conftest.cpython-312.pyc
            |-- test_angle_helper.cpython-312.pyc
            -- test_axis_artist.cpython-312.pyc
            |-- test_axislines.cpython-312.pyc
            |-- ... (3 more files)
        |-- conftest.py
        |-- test_angle_helper.py
        |-- test_axis_artist.py
        |-- test_axislines.py
        |-- ... (4 more files)
|-- mplot3d/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- art3d.cpython-312.pyc
        |-- axes3d.cpython-312.pyc
        |-- axis3d.cpython-312.pyc
        |-- proj3d.cpython-312.pyc
```

```
-- art3d.py
        -- axes3d.py
        |-- axis3d.py
        |-- proj3d.py
        -- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- conftest.cpython-312.pyc
                |-- test_art3d.cpython-312.pyc
                -- test_axes3d.cpython-312.pyc
                |-- test_legend3d.cpython-312.pyc
            |-- conftest.py
            |-- test_art3d.py
            -- test_axes3d.py
            |-- test legend3d.py
|-- mpmath/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- ctx_base.cpython-312.pyc
        -- ctx_fp.cpython-312.pyc
        |-- ctx_iv.cpython-312.pyc
        |-- ctx_mp.cpython-312.pyc
        |-- ... (7 more files)
    |-- calculus/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- approximation.cpython-312.pyc
            |-- calculus.cpython-312.pyc
            |-- differentiation.cpython-312.pyc
            |-- extrapolation.cpython-312.pyc
            |-- ... (5 more files)
        |-- approximation.py
        |-- calculus.py
        |-- differentiation.py
        |-- extrapolation.py
        |-- ... (6 more files)
    -- ctx_base.py
    -- ctx_fp.py
    -- ctx_iv.py
    -- ctx_mp.py
    |-- ... (13 more files)
    |-- functions/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- bessel.cpython-312.pyc
            |-- elliptic.cpython-312.pyc
            |-- expintegrals.cpython-312.pyc
            |-- factorials.cpython-312.pyc
            |-- ... (9 more files)
```

```
-- bessel.py
        |-- elliptic.py
        |-- expintegrals.py
        |-- factorials.py
        |-- ... (10 more files)
    |-- libmp/
       -- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- backend.cpython-312.pyc
            |-- gammazeta.cpython-312.pyc
            |-- libelefun.cpython-312.pyc
            |-- libhyper.cpython-312.pyc
            |-- ... (4 more files)
       -- backend.py
        |-- gammazeta.py
        |-- libelefun.py
        |-- libhyper.py
       |-- ... (5 more files)
    |-- matrices/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- calculus.cpython-312.pyc
            -- eigen.cpython-312.pyc
            |-- eigen symmetric.cpython-312.pyc
            |-- linalg.cpython-312.pyc
            |-- ... (1 more files)
        |-- calculus.py
        |-- eigen.py
        |-- eigen_symmetric.py
        |-- linalg.py
        |-- ... (2 more files)
   |-- tests/
       |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            -- extratest_gamma.cpython-312.pyc
            -- extratest_zeta.cpython-312.pyc
            -- runtests.cpython-312.pyc
            |-- test_basic_ops.cpython-312.pyc
            |-- ... (31 more files)
        -- extratest_gamma.py
        |-- extratest_zeta.py
        -- runtests.py
        |-- test_basic_ops.py
        |-- ... (32 more files)
|-- mpmath-1.3.0.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
```

```
|-- ... (1 more files)
|-- networkx/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- convert.cpython-312.pyc
        -- convert_matrix.cpython-312.pyc
        |-- exception.cpython-312.pyc
        |-- ... (2 more files)
    |-- algorithms/
       |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- asteroidal.cpython-312.pyc
            |-- boundary.cpython-312.pyc
            |-- bridges.cpython-312.pyc
            |-- broadcasting.cpython-312.pyc
            |-- ... (51 more files)
        |-- approximation/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- clique.cpython-312.pyc
                |-- clustering_coefficient.cpython-312.pyc
                |-- connectivity.cpython-312.pyc
                |-- density.cpython-312.pyc
                |-- ... (10 more files)
            |-- clique.py
            |-- clustering_coefficient.py
            |-- connectivity.py
            |-- density.py
            |-- ... (12 more files)
            |-- tests/
                -- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
                    -- test_approx_clust_coeff.cpython-312.pyc
                    |-- test_clique.cpython-312.pyc
                    |-- test_connectivity.cpython-312.pyc
                    -- test_density.cpython-312.pyc
                    |-- ... (10 more files)
                |-- test_approx_clust_coeff.py
                |-- test_clique.py
                |-- test_connectivity.py
                |-- test_density.py
                |-- ... (11 more files)
        |-- assortativity/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- connectivity.cpython-312.pyc
                |-- correlation.cpython-312.pyc
```

```
|-- mixing.cpython-312.pyc
        |-- neighbor_degree.cpython-312.pyc
        |-- ... (1 more files)
    |-- connectivity.py
    |-- correlation.py
    |-- mixing.py
    |-- neighbor_degree.py
    |-- ... (3 more files)
    -- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- base_test.cpython-312.pyc
            |-- test_connectivity.cpython-312.pyc
            -- test_correlation.cpython-312.pyc
            |-- test_mixing.cpython-312.pyc
            |-- ... (2 more files)
        |-- base_test.py
        |-- test_connectivity.py
        |-- test_correlation.py
        |-- test_mixing.py
        |-- ... (3 more files)
|-- asteroidal.py
|-- bipartite/
   |-- __init__.py
   |-- pycache /
        -- __init__.cpython-312.pyc
        |-- basic.cpython-312.pyc
        |-- centrality.cpython-312.pyc
        |-- cluster.cpython-312.pyc
        |-- covering.cpython-312.pyc
        |-- ... (9 more files)
    -- basic.py
    |-- centrality.py
    |-- cluster.py
    |-- covering.py
    |-- ... (11 more files)
   |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_basic.cpython-312.pyc
            |-- test_centrality.cpython-312.pyc
            -- test_cluster.cpython-312.pyc
            -- test_covering.cpython-312.pyc
            |-- ... (9 more files)
        |-- test basic.py
        |-- test_centrality.py
        |-- test_cluster.py
        |-- test_covering.py
        |-- ... (10 more files)
|-- boundary.py
|-- bridges.py
```

```
|-- broadcasting.py
|-- centrality/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- betweenness.cpython-312.pyc
        |-- betweenness_subset.cpython-312.pyc
        |-- closeness.cpython-312.pyc
        |-- current_flow_betweenness.cpython-312.pyc
        |-- ... (17 more files)
    |-- betweenness.py
    |-- betweenness_subset.py
    |-- closeness.py
    |-- current_flow_betweenness.py
    |-- ... (19 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_betweenness_centrality.cpython-312.pyc
            |-- test_betweenness_centrality_subset.cpython-312.pyc
            |-- test_closeness_centrality.cpython-312.pyc
            |-- test_current_flow_betweenness_centrality.cpython-312.pyc
            |-- ... (16 more files)
        |-- test_betweenness_centrality.py
        |-- test betweenness centrality subset.py
        |-- test closeness centrality.py
        |-- test_current_flow_betweenness_centrality.py
        |-- ... (17 more files)
|-- ... (69 more files)
|-- coloring/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- equitable_coloring.cpython-312.pyc
        |-- greedy_coloring.cpython-312.pyc
    |-- equitable_coloring.py
   |-- greedy_coloring.py
    -- tests/
        |-- __init__.py
        |-- ___pycache___/
           -- __init__.cpython-312.pyc
            |-- test_coloring.cpython-312.pyc
        |-- test_coloring.py
|-- community/
   |-- __init__.py
   |-- ___pycache___/
        |-- __init___.cpython-312.pyc
       |-- asyn_fluid.cpython-312.pyc
        |-- centrality.cpython-312.pyc
        |-- community_utils.cpython-312.pyc
        |-- divisive.cpython-312.pyc
        |-- ... (9 more files)
```

```
-- asyn_fluid.py
    |-- centrality.py
    |-- community utils.py
    |-- divisive.py
    |-- ... (11 more files)
    -- tests/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- test_asyn_fluid.cpython-312.pyc
            -- test_centrality.cpython-312.pyc
            |-- test_divisive.cpython-312.pyc
            |-- test kclique.cpython-312.pyc
            |-- ... (9 more files)
       -- test_asyn_fluid.py
        |-- test_centrality.py
        |-- test_divisive.py
        |-- test_kclique.py
        |-- ... (10 more files)
|-- components/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- attracting.cpython-312.pyc
        |-- biconnected.cpython-312.pyc
        |-- connected.cpython-312.pyc
        |-- semiconnected.cpython-312.pyc
        |-- ... (2 more files)
    |-- attracting.py
    |-- biconnected.py
    |-- connected.py
    |-- semiconnected.py
    |-- ... (4 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_attracting.cpython-312.pyc
            |-- test_biconnected.cpython-312.pyc
            |-- test_connected.cpython-312.pyc
            -- test_semiconnected.cpython-312.pyc
            |-- ... (2 more files)
        |-- test_attracting.py
        |-- test_biconnected.py
        |-- test_connected.py
        |-- test_semiconnected.py
        |-- ... (3 more files)
|-- connectivity/
   |-- __init__.py
   |-- __pycache__/
       -- __init__.cpython-312.pyc
        |-- connectivity.cpython-312.pyc
        |-- cuts.cpython-312.pyc
```

```
|-- disjoint_paths.cpython-312.pyc
        |-- edge_augmentation.cpython-312.pyc
        |-- ... (5 more files)
    |-- connectivity.py
    |-- cuts.py
    |-- disjoint paths.py
    |-- edge_augmentation.py
    |-- ... (7 more files)
    -- tests/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- test connectivity.cpython-312.pyc
            |-- test_cuts.cpython-312.pyc
            -- test_disjoint_paths.cpython-312.pyc
            -- test_edge_augmentation.cpython-312.pyc
            |-- ... (4 more files)
        |-- test_connectivity.py
        |-- test_cuts.py
        |-- test_disjoint_paths.py
        |-- test_edge_augmentation.py
        |-- ... (5 more files)
|-- flow/
   |-- __init__.py
    |-- __pycache__/
       |-- init .cpython-312.pyc
        |-- boykovkolmogorov.cpython-312.pyc
        |-- capacityscaling.cpython-312.pyc
        |-- dinitz_alg.cpython-312.pyc
        |-- edmondskarp.cpython-312.pyc
        |-- ... (7 more files)
    |-- boykovkolmogorov.py
    |-- capacityscaling.py
    |-- dinitz_alg.py
    |-- edmondskarp.py
    |-- ... (9 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_gomory_hu.cpython-312.pyc
            -- test_maxflow.cpython-312.pyc
            -- test_maxflow_large_graph.cpython-312.pyc
            |-- test_mincost.cpython-312.pyc
            |-- ... (1 more files)
        |-- gl1.gpickle.bz2
        |-- gwl.qpickle.bz2
        |-- netgen-2.gpickle.bz2
        |-- test_gomory_hu.py
        |-- ... (6 more files)
|-- isomorphism/
   |-- __init__.py
    |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
        |-- ismags.cpython-312.pyc
        |-- isomorph.cpython-312.pyc
        |-- isomorphvf2.cpython-312.pyc
        |-- matchhelpers.cpython-312.pyc
        |-- ... (4 more files)
    |-- ismags.py
    |-- isomorph.py
    |-- isomorphvf2.py
    |-- matchhelpers.py
    |-- ... (6 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_ismags.cpython-312.pyc
            |-- test_isomorphism.cpython-312.pyc
            -- test_isomorphvf2.cpython-312.pyc
            |-- test_match_helpers.cpython-312.pyc
            |-- ... (5 more files)
        |-- iso_r01_s80.A99
        |-- iso_r01_s80.B99
        |-- si2 b06 m200.A99
        |-- si2_b06_m200.B99
        |-- ... (10 more files)
|-- link analysis/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- hits_alg.cpython-312.pyc
        |-- pagerank_alg.cpython-312.pyc
    |-- hits_alg.py
    |-- pagerank_alg.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_hits.cpython-312.pyc
            -- test_pagerank.cpython-312.pyc
        |-- test_hits.py
        -- test_pagerank.py
|-- minors/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- contraction.cpython-312.pyc
    |-- contraction.py
    |-- tests/
       |-- __pycache__/
           -- test_contraction.cpython-312.pyc
       |-- test_contraction.py
|-- operators/
   |-- __init__.py
```

```
|-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- all.cpython-312.pyc
        |-- binary.cpython-312.pyc
        |-- product.cpython-312.pyc
        |-- unary.cpython-312.pyc
    |-- all.py
    |-- binary.py
    |-- product.py
    -- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_all.cpython-312.pyc
            -- test_binary.cpython-312.pyc
            |-- test_product.cpython-312.pyc
            -- test_unary.cpython-312.pyc
        |-- test_all.py
        |-- test_binary.py
        |-- test_product.py
        -- test_unary.py
   -- unary.py
|-- shortest_paths/
   |-- __init__.py
    |-- __pycache__/
       |-- init .cpython-312.pyc
        |-- astar.cpython-312.pyc
        |-- dense.cpython-312.pyc
        |-- generic.cpython-312.pyc
        |-- unweighted.cpython-312.pyc
        |-- ... (1 more files)
    |-- astar.py
    -- dense.py
    |-- generic.py
    -- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_astar.cpython-312.pyc
            |-- test_dense.cpython-312.pyc
            -- test_dense_numpy.cpython-312.pyc
            -- test_generic.cpython-312.pyc
            |-- ... (2 more files)
        |-- test_astar.py
        |-- test_dense.py
        |-- test_dense_numpy.py
        |-- test generic.py
        |-- ... (3 more files)
    |-- unweighted.py
    |-- ... (3 more files)
|-- tests/
   |-- __init__.py
    |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
        |-- test_asteroidal.cpython-312.pyc
        |-- test_boundary.cpython-312.pyc
        |-- test_bridges.cpython-312.pyc
        |-- test_broadcasting.cpython-312.pyc
        |-- ... (52 more files)
    |-- test_asteroidal.py
    |-- test_boundary.py
    |-- test_bridges.py
    |-- test_broadcasting.py
    |-- ... (53 more files)
|-- traversal/
    |-- __init__.py
    |-- __pycache__/
       -- __init__.cpython-312.pyc
        |-- beamsearch.cpython-312.pyc
        |-- breadth_first_search.cpython-312.pyc
        -- depth_first_search.cpython-312.pyc
        -- edgebfs.cpython-312.pyc
        |-- ... (1 more files)
    |-- beamsearch.py
    |-- breadth_first_search.py
    |-- depth_first_search.py
    |-- edgebfs.py
    |-- ... (3 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_beamsearch.cpython-312.pyc
            -- test_bfs.cpython-312.pyc
            -- test_dfs.cpython-312.pyc
            |-- test_edgebfs.cpython-312.pyc
            |-- ... (1 more files)
        |-- test_beamsearch.py
        |-- test bfs.py
        -- test_dfs.py
        |-- test_edgebfs.py
        |-- ... (2 more files)
|-- tree/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- branchings.cpython-312.pyc
        |-- coding.cpython-312.pyc
        |-- decomposition.cpython-312.pyc
        |-- mst.cpython-312.pyc
        |-- ... (2 more files)
    |-- branchings.py
    |-- coding.py
    |-- decomposition.py
    -- mst.py
    |-- ... (4 more files)
```

```
|-- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_branchings.cpython-312.pyc
                |-- test coding.cpython-312.pyc
                |-- test_decomposition.cpython-312.pyc
                -- test_mst.cpython-312.pyc
                |-- ... (2 more files)
            |-- test_branchings.py
            |-- test_coding.py
            |-- test_decomposition.py
            -- test_mst.py
            |-- ... (3 more files)
|-- classes/
   |-- __init__.py
   -- __pycache__/
        -- __init__.cpython-312.pyc
        |-- coreviews.cpython-312.pyc
        -- digraph.cpython-312.pyc
        |-- filters.cpython-312.pyc
        |-- function.cpython-312.pyc
        |-- ... (5 more files)
    |-- coreviews.py
    |-- digraph.py
    |-- filters.py
    |-- function.py
    |-- ... (7 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- dispatch_interface.cpython-312.pyc
            |-- historical_tests.cpython-312.pyc
            |-- test_coreviews.cpython-312.pyc
            |-- test_digraph.cpython-312.pyc
            |-- ... (11 more files)
        |-- dispatch_interface.py
        |-- historical_tests.py
        |-- test_coreviews.py
        |-- test_digraph.py
        |-- ... (12 more files)
|-- conftest.py
|-- convert.py
|-- convert_matrix.py
-- drawing/
    |-- __init__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- layout.cpython-312.pyc
        -- nx_agraph.cpython-312.pyc
        |-- nx_latex.cpython-312.pyc
        |-- nx_pydot.cpython-312.pyc
```

```
|-- ... (1 more files)
    |-- layout.py
    |-- nx_agraph.py
    |-- nx_latex.py
    -- nx_pydot.py
    |-- ... (3 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache_ /
            |-- __init__.cpython-312.pyc
            -- test_agraph.cpython-312.pyc
            |-- test_latex.cpython-312.pyc
            |-- test_layout.cpython-312.pyc
            -- test_pydot.cpython-312.pyc
            |-- ... (1 more files)
        |-- baseline/
            |-- test_display_complex.png
            |-- test_display_empty_graph.png
            |-- test_display_house_with_colors.png
            |-- test_display_labels_and_colors.png
            |-- test_display_shortest_path.png
            |-- ... (1 more files)
        |-- test_agraph.py
        |-- test_latex.py
        |-- test_layout.py
        |-- test pydot.py
        |-- ... (3 more files)
-- exception.py
|-- generators/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- atlas.cpython-312.pyc
        |-- classic.cpython-312.pyc
        -- cographs.cpython-312.pyc
        |-- community.cpython-312.pyc
        |-- ... (25 more files)
   |-- atlas.dat.gz
   |-- atlas.py
   -- classic.py
    |-- cographs.py
   |-- ... (28 more files)
    -- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test atlas.cpython-312.pyc
            -- test_classic.cpython-312.pyc
            -- test_cographs.cpython-312.pyc
            |-- test_community.cpython-312.pyc
            |-- ... (24 more files)
        |-- test_atlas.py
        |-- test_classic.py
```

```
-- test_cographs.py
        |-- test_community.py
        |-- ... (25 more files)
|-- ... (11 more files)
|-- linalg/
   -- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- algebraicconnectivity.cpython-312.pyc
        |-- attrmatrix.cpython-312.pyc
        |-- bethehessianmatrix.cpython-312.pyc
        |-- graphmatrix.cpython-312.pyc
        |-- ... (3 more files)
    |-- algebraicconnectivity.py
   |-- attrmatrix.py
    |-- bethehessianmatrix.py
   |-- graphmatrix.py
   |-- ... (5 more files)
   |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_algebraic_connectivity.cpython-312.pyc
            -- test_attrmatrix.cpython-312.pyc
            |-- test_bethehessian.cpython-312.pyc
            |-- test graphmatrix.cpython-312.pyc
            |-- ... (3 more files)
        |-- test_algebraic_connectivity.py
        |-- test_attrmatrix.py
        |-- test_bethehessian.py
        |-- test_graphmatrix.py
        |-- ... (4 more files)
|-- readwrite/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- adjlist.cpython-312.pyc
        |-- edgelist.cpython-312.pyc
        |-- gexf.cpython-312.pyc
        |-- gml.cpython-312.pyc
        |-- ... (8 more files)
   |-- adjlist.py
    |-- edgelist.py
   |-- gexf.py
   -- gml.py
   |-- ... (11 more files)
   |-- json graph/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- adjacency.cpython-312.pyc
            -- cytoscape.cpython-312.pyc
            |-- node_link.cpython-312.pyc
```

```
|-- tree.cpython-312.pyc
        |-- adjacency.py
        |-- cytoscape.py
        |-- node_link.py
        -- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_adjacency.cpython-312.pyc
                |-- test_cytoscape.cpython-312.pyc
                -- test_node_link.cpython-312.pyc
                |-- test_tree.cpython-312.pyc
            |-- test_adjacency.py
            |-- test_cytoscape.py
            -- test_node_link.py
            |-- test_tree.py
        |-- tree.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_adjlist.cpython-312.pyc
            |-- test_edgelist.cpython-312.pyc
            -- test_gexf.cpython-312.pyc
            -- test_gml.cpython-312.pyc
            |-- ... (7 more files)
        |-- test adjlist.py
        |-- test_edgelist.py
        -- test_gexf.py
        |-- test_gml.py
        |-- ... (8 more files)
-- tests/
   -- __init__.py
   -- __pycache__/
        -- __init__.cpython-312.pyc
        |-- test_all_random_functions.cpython-312.pyc
        |-- test_convert.cpython-312.pyc
        -- test_convert_numpy.cpython-312.pyc
        -- test_convert_pandas.cpython-312.pyc
        |-- ... (5 more files)
    |-- test_all_random_functions.py
    |-- test_convert.py
    |-- test_convert_numpy.py
    |-- test_convert_pandas.py
    |-- ... (6 more files)
|-- utils/
   |-- init .py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- backends.cpython-312.pyc
        |-- configs.cpython-312.pyc
        |-- decorators.cpython-312.pyc
        |-- heaps.cpython-312.pyc
```

```
|-- ... (5 more files)
        |-- backends.py
        |-- configs.py
        |-- decorators.py
        -- heaps.py
        |-- ... (7 more files)
        -- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test__init.cpython-312.pyc
                -- test_backends.cpython-312.pyc
                |-- test_config.cpython-312.pyc
                |-- test_decorators.cpython-312.pyc
                |-- ... (6 more files)
            |-- test__init.py
            -- test_backends.py
            |-- test_config.py
            |-- test_decorators.py
            |-- ... (7 more files)
|-- networkx-3.5.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- entry points.txt
    |-- licenses/
       -- LICENSE.txt
    |-- ... (2 more files)
|-- numpy/
    |-- __config__.py
    |-- __config__.pyi
    -- __init__.cython-30.pxd
    |-- __init__.pxd
    -- __init__.py
    |-- ... (47 more files)
    |-- __pycache__/
        |-- __config__.cpython-312.pyc
        |-- __init__.cpython-312.pyc
        |-- _array_api_info.cpython-312.pyc
        |-- _configtool.cpython-312.pyc
        |-- _distributor_init.cpython-312.pyc
        |-- ... (9 more files)
    |-- _core/
       -- __init__.py
        |-- __init__.pyi
        |-- pycache /
            -- __init__.cpython-312.pyc
            -- _add_newdocs.cpython-312.pyc
            |-- _add_newdocs_scalars.cpython-312.pyc
            |-- _asarray.cpython-312.pyc
            -- _dtype.cpython-312.pyc
            |-- ... (25 more files)
```

```
-- _add_newdocs.py
|-- _add_newdocs.pyi
|-- _add_newdocs_scalars.py
|-- ... (73 more files)
|-- include/
    |-- numpy/
        |-- __multiarray_api.c
        |-- __multiarray_api.h
        |-- __ufunc_api.c
        |-- __ufunc_api.h
        |-- _neighborhood_iterator_imp.h
        |-- ... (22 more files)
        |-- random/
            |-- LICENSE.txt
            |-- bitgen.h
            |-- distributions.h
            |-- libdivide.h
|-- lib/
    |-- npy-pkg-config/
        |-- mlib.ini
        |-- npymath.ini
    |-- npymath.lib
    |-- pkgconfig/
        -- numpy.pc
-- tests/
   |-- pycache /
        |-- _locales.cpython-312.pyc
        -- _natype.cpython-312.pyc
        |-- test__exceptions.cpython-312.pyc
        -- test_abc.cpython-312.pyc
        |-- test_api.cpython-312.pyc
        |-- ... (62 more files)
    |-- _locales.py
    -- _natype.py
    -- data/
        |-- astype_copy.pkl
        |-- generate_umath_validation_data.cpp
        |-- recarray_from_file.fits
        |-- umath-validation-set-README.txt
        |-- umath-validation-set-arccos.csv
        |-- ... (19 more files)
    -- examples/
        |-- cython/
            |-- __pycache__/
                -- setup.cpython-312.pyc
            -- checks.pyx
            |-- meson.build
            -- setup.py
        |-- limited_api/
            |-- __pycache__/
                -- setup.cpython-312.pyc
            |-- limited_api1.c
            |-- limited_api2.pyx
```

```
|-- limited_api_latest.c
                |-- meson.build
                |-- setup.py
        |-- test__exceptions.py
        |-- test_abc.py
        |-- test api.py
        |-- ... (65 more files)
|-- _pyinstaller/
   |-- __init__.py
   |-- __init__.pyi
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- hook-numpy.cpython-312.pyc
    -- hook-numpy.py
    |-- hook-numpy.pyi
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- pyinstaller-smoke.cpython-312.pyc
            -- test_pyinstaller.cpython-312.pyc
        |-- pyinstaller-smoke.py
        |-- test_pyinstaller.py
|-- _typing/
   -- __init__.py
   |-- pycache /
        |-- __init__.cpython-312.pyc
        |-- _add_docstring.cpython-312.pyc
        |-- _array_like.cpython-312.pyc
        |-- _char_codes.cpython-312.pyc
        |-- _dtype_like.cpython-312.pyc
        |-- ... (7 more files)
    |-- _add_docstring.py
   |-- _array_like.py
    |-- _callable.pyi
    |-- _char_codes.py
    |-- ... (10 more files)
|-- _utils/
   |-- __init__.py
   |-- __init__.pyi
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _convertions.cpython-312.pyc
        |-- _inspect.cpython-312.pyc
        -- _pep440.cpython-312.pyc
    |-- _convertions.py
    |-- convertions.pyi
    |-- _inspect.py
   |-- ... (4 more files)
|-- char/
   |-- __init__.py
    |-- __init__.pyi
    |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
|-- compat/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- py3k.cpython-312.pyc
    |-- py3k.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
|-- core/
   |-- __init__.py
   -- __init__.pyi
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _dtype.cpython-312.pyc
        |-- _dtype_ctypes.cpython-312.pyc
        |-- _internal.cpython-312.pyc
        |-- _multiarray_umath.cpython-312.pyc
        |-- ... (14 more files)
   -- _dtype.py
   |-- _dtype.pyi
    |-- _dtype_ctypes.py
    |-- ... (19 more files)
|-- doc/
    |-- __pycache__/
       |-- ufuncs.cpython-312.pyc
    |-- ufuncs.py
|-- f2py/
   |-- __init__.py
    |-- __init__.pyi
    |-- __main__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        -- __version__.cpython-312.pyc
        |-- _isocbind.cpython-312.pyc
        -- _src_pyf.cpython-312.pyc
        |-- ... (13 more files)
    -- __version__.py
    -- _backends/
        |-- __init__.py
        |-- ___pycache___/
            |-- __init__.cpython-312.pyc
            |-- _backend.cpython-312.pyc
            |-- distutils.cpython-312.pyc
            -- _meson.cpython-312.pyc
        |-- _backend.py
        |-- _distutils.py
        -- _meson.py
        |-- meson.build.template
    |-- _isocbind.py
```

```
|-- ... (19 more files)
|-- src/
    |-- fortranobject.c
   |-- fortranobject.h
-- tests/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_abstract_interface.cpython-312.pyc
        -- test_array_from_pyobj.cpython-312.pyc
        -- test_assumed_shape.cpython-312.pyc
        |-- test_block_docstring.cpython-312.pyc
        |-- ... (28 more files)
    |-- src/
        |-- abstract_interface/
            |-- foo.f90
            |-- gh18403_mod.f90
        |-- array_from_pyobj/
            |-- wrapmodule.c
        |-- assumed_shape/
            -- .f2py_f2cmap
            -- foo_free.f90
            |-- foo_mod.f90
            |-- foo_use.f90
            |-- precision.f90
        |-- block docstring/
           -- foo.f
        -- callback/
            |-- foo.f
            |-- gh17797.f90
            |-- gh18335.f90
            -- gh25211.f
            |-- gh25211.pyf
            |-- ... (1 more files)
        |-- cli/
            |-- gh_22819.pyf
            |-- hi77.f
            |-- hiworld.f90
        -- common/
            |-- block.f
            |-- gh19161.f90
        |-- crackfortran/
            |-- accesstype.f90
            |-- common_with_division.f
            |-- data_common.f
            |-- data_multiplier.f
            |-- data stmts.f90
            |-- ... (16 more files)
        -- f2cmap/
            -- .f2py_f2cmap
            |-- isoFortranEnvMap.f90
        |-- isocintrin/
            |-- isoCtests.f90
```

```
|-- kind/
    |-- foo.f90
|-- mixed/
    |-- foo.f
    |-- foo_fixed.f90
    |-- foo free.f90
|-- modules/
    |-- gh25337/
        |-- data.f90
        |-- use_data.f90
    |-- gh26920/
        |-- two_mods_with_no_public_entities.f90
        |-- two_mods_with_one_public_routine.f90
    |-- module_data_docstring.f90
    |-- use_modules.f90
|-- negative_bounds/
   |-- issue_20853.f90
-- parameter/
    |-- constant_array.f90
    |-- constant_both.f90
    |-- constant_compound.f90
    |-- constant_integer.f90
    |-- constant_non_compound.f90
    |-- ... (1 more files)
|-- quoted_character/
  -- foo.f
|-- regression/
   -- AB.inc
    |-- assignOnlyModule.f90
    |-- datonly.f90
    |-- f77comments.f
    |-- f77fixedform.f95
    |-- ... (4 more files)
|-- return_character/
    |-- foo77.f
    |-- foo90.f90
|-- return_complex/
   -- foo77.f
    |-- foo90.f90
|-- return_integer/
   |-- foo77.f
   |-- foo90.f90
|-- return_logical/
    |-- foo77.f
    |-- foo90.f90
|-- return_real/
   |-- foo77.f
    |-- foo90.f90
-- routines/
    |-- funcfortranname.f
    |-- funcfortranname.pyf
    |-- subrout.f
    |-- subrout.pyf
```

```
|-- size/
                |-- foo.f90
            |-- string/
                |-- char.f90
                |-- fixed_string.f90
                |-- gh24008.f
                |-- gh24662.f90
                |-- gh25286.f90
                |-- ... (4 more files)
            |-- value_attrspec/
                |-- gh21665.f90
        |-- test_abstract_interface.py
        |-- test_array_from_pyobj.py
        |-- test_assumed_shape.py
        |-- test_block_docstring.py
        |-- ... (30 more files)
|-- fft/
   |-- __init__.py
    |-- __init__.pyi
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- _helper.cpython-312.pyc
        |-- _pocketfft.cpython-312.pyc
        |-- helper.cpython-312.pyc
    -- _helper.py
    |-- helper.pyi
    |-- pocketfft.py
    |-- ... (7 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_helper.cpython-312.pyc
            -- test_pocketfft.cpython-312.pyc
        |-- test_helper.py
        |-- test_pocketfft.py
|-- lib/
   |-- __init__.py
    |-- __init__.pyi
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _array_utils_impl.cpython-312.pyc
        |-- _arraypad_impl.cpython-312.pyc
        |-- _arraysetops_impl.cpython-312.pyc
        |-- _arrayterator_impl.cpython-312.pyc
        |-- ... (26 more files)
    |-- _array_utils_impl.py
    |-- _array_utils_impl.pyi
    |-- _arraypad_impl.py
    |-- ... (59 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
            |-- test__datasource.cpython-312.pyc
            |-- test__iotools.cpython-312.pyc
            |-- test__version.cpython-312.pyc
            |-- test_array_utils.cpython-312.pyc
            |-- ... (21 more files)
        |-- data/
            |-- py2-np0-objarr.npy
            |-- py2-objarr.npy
            |-- py2-objarr.npz
            |-- py3-objarr.npy
            |-- py3-objarr.npz
            |-- ... (2 more files)
        |-- test__datasource.py
        |-- test__iotools.py
        |-- test__version.py
        |-- test_array_utils.py
        |-- ... (23 more files)
|-- linalg/
   |-- __init__.py
   |-- __init__.pyi
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _linalg.cpython-312.pyc
        |-- linalg.cpython-312.pyc
    |-- linalq.py
    |-- linalq.pyi
    |-- _umath_linalg.cp312-win_amd64.lib
    |-- ... (9 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_deprecations.cpython-312.pyc
            |-- test_linalg.cpython-312.pyc
            |-- test_regression.cpython-312.pyc
        |-- test_deprecations.py
        |-- test_linalg.py
        |-- test_regression.py
|-- ma/
    |-- API_CHANGES.txt
    -- LICENSE
    |-- README.rst
    |-- __init__.py
    |-- __init__.pyi
    -- __pycache__/
       -- init .cpython-312.pyc
        |-- core.cpython-312.pyc
        -- extras.cpython-312.pyc
        |-- mrecords.cpython-312.pyc
        |-- testutils.cpython-312.pyc
        |-- ... (1 more files)
    |-- ... (10 more files)
```

```
|-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test_arrayobject.cpython-312.pyc
            |-- test core.cpython-312.pyc
            |-- test_deprecations.cpython-312.pyc
            |-- test_extras.cpython-312.pyc
            |-- ... (4 more files)
        |-- test_arrayobject.py
        |-- test_core.py
        |-- test_deprecations.py
        |-- test extras.py
        |-- ... (5 more files)
|-- matrixlib/
   |-- __init__.py
    |-- __init__.pyi
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- defmatrix.cpython-312.pyc
    |-- defmatrix.py
    |-- defmatrix.pyi
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- init .cpython-312.pyc
            |-- test defmatrix.cpython-312.pyc
            |-- test_interaction.cpython-312.pyc
            -- test_masked_matrix.cpython-312.pyc
            |-- test_matrix_linalg.cpython-312.pyc
            |-- ... (3 more files)
        |-- test_defmatrix.py
        |-- test_interaction.py
        |-- test_masked_matrix.py
        |-- test_matrix_linalg.py
        |-- ... (4 more files)
|-- polynomial/
   |-- __init__.py
    |-- __init__.pyi
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _polybase.cpython-312.pyc
        -- chebyshev.cpython-312.pyc
        |-- hermite.cpython-312.pyc
        -- hermite_e.cpython-312.pyc
        |-- ... (4 more files)
    |-- polybase.py
    |-- _polybase.pyi
    |-- _polytypes.pyi
    |-- ... (16 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
            |-- test_chebyshev.cpython-312.pyc
            |-- test_classes.cpython-312.pyc
            |-- test_hermite.cpython-312.pyc
            |-- test_hermite_e.cpython-312.pyc
            |-- ... (6 more files)
        |-- test_chebyshev.py
        |-- test_classes.py
        |-- test_hermite.py
        |-- test_hermite_e.py
        |-- ... (7 more files)
-- random/
   |-- LICENSE.md
    -- __init__.pxd
   |-- __init__.py
   |-- __init__.pyi
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
       |-- _pickle.cpython-312.pyc
    |-- _bounded_integers.cp312-win_amd64.lib
   |-- ... (34 more files)
   -- _examples/
       |-- cffi/
            |-- __pycache__/
                |-- extending.cpython-312.pyc
               |-- parse.cpython-312.pyc
            |-- extending.py
            |-- parse.py
        |-- cython/
            |-- extending.pyx
            |-- extending_distributions.pyx
            |-- meson.build
        -- numba/
           |-- __pycache__/
                |-- extending.cpython-312.pyc
                |-- extending distributions.cpython-312.pyc
            |-- extending.py
            |-- extending_distributions.py
   |-- lib/
        |-- npyrandom.lib
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test_direct.cpython-312.pyc
            -- test_extending.cpython-312.pyc
            |-- test generator mt19937.cpython-312.pyc
            -- test_generator_mt19937_regressions.cpython-312.pyc
            |-- ... (6 more files)
        |-- data/
            |-- __init__.py
            -- __pycache__/
                |-- __init__.cpython-312.pyc
```

```
-- generator_pcg64_np121.pkl.gz
            |-- generator_pcg64_np126.pkl.gz
            |-- mt19937-testset-1.csv
            |-- mt19937-testset-2.csv
            |-- ... (10 more files)
        |-- test direct.py
        |-- test_extending.py
        |-- test_generator_mt19937.py
        |-- test_generator_mt19937_regressions.py
        |-- ... (8 more files)
|-- rec/
   -- __init__.py
   |-- __init__.pyi
   -- __pycache__/
       -- __init__.cpython-312.pyc
|-- strings/
   |-- __init__.py
   |-- __init__.pyi
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
|-- testing/
   |-- __init__.py
   |-- __init__.pyi
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- overrides.cpython-312.pyc
        |-- print_coercion_tables.cpython-312.pyc
    |-- _private/
       |-- __init__.py
        |-- __init__.pyi
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- extbuild.cpython-312.pyc
            |-- utils.cpython-312.pyc
        |-- extbuild.py
        |-- extbuild.pyi
        |-- utils.py
        |-- ... (2 more files)
    -- overrides.py
    |-- overrides.pyi
    |-- print_coercion_tables.py
    |-- ... (4 more files)
    |-- tests/
        -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test utils.cpython-312.pyc
        |-- test_utils.py
-- tests/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test__all__.cpython-312.pyc
```

```
-- test_configtool.cpython-312.pyc
        |-- test_ctypeslib.cpython-312.pyc
        -- test_lazyloading.cpython-312.pyc
        |-- ... (7 more files)
    -- test_all_.py
    |-- test configtool.py
    -- test_ctypeslib.py
   -- test_lazyloading.py
   |-- ... (8 more files)
|-- typing/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- mypy_plugin.cpython-312.pyc
   -- mypy_plugin.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_isfile.cpython-312.pyc
            |-- test_runtime.cpython-312.pyc
            |-- test_typing.cpython-312.pyc
        |-- data/
            |-- fail/
                |-- arithmetic.pyi
                |-- array constructors.pyi
                |-- array_like.pyi
                -- array_pad.pyi
                |-- arrayprint.pyi
                |-- ... (41 more files)
            |-- misc/
                |-- extended_precision.pyi
            |-- mypy.ini
            |-- pass/
                |-- __pycache__/
                    |-- arithmetic.cpython-312.pyc
                    -- array_constructors.cpython-312.pyc
                    |-- array_like.cpython-312.pyc
                    |-- arrayprint.cpython-312.pyc
                    |-- arrayterator.cpython-312.pyc
                    |-- ... (31 more files)
                |-- arithmetic.py
                |-- array_constructors.py
                |-- array_like.py
                -- arrayprint.py
                -- arrayterator.py
                |-- ... (32 more files)
            |-- reveal/
                |-- arithmetic.pyi
                |-- array_api_info.pyi
                |-- array_constructors.pyi
                -- arraypad.pyi
                |-- arrayprint.pyi
```

```
|-- ... (55 more files)
            |-- test_isfile.py
            |-- test_runtime.py
            |-- test_typing.py
|-- numpy-2.2.6.dist-info/
    -- DELVEWHEEL
    -- INSTALLER
    |-- LICENSE.txt
    -- METADATA
    -- RECORD
    |-- ... (2 more files)
|-- numpy.libs/
    -- libscipy_openblas64_-13e2df515630b4a41f92893938845698.dll
    -- msvcp140-263139962577ecda4cd9469ca360a746.dll
-- opencv_python-4.11.0.86.dist-info/
    |-- INSTALLER
    |-- LICENSE-3RD-PARTY.txt
    |-- LICENSE.txt
    -- METADATA
    -- RECORD
    |-- ... (2 more files)
|-- opencv_python_headless-4.10.0.84.dist-info/
    -- INSTALLER
    |-- LICENSE-3RD-PARTY.txt
    |-- LICENSE.txt
    -- METADATA
    -- RECORD
    |-- ... (2 more files)
|-- packaging/
   |-- __init__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _elffile.cpython-312.pyc
        |-- _manylinux.cpython-312.pyc
        |-- _musllinux.cpython-312.pyc
        |-- _parser.cpython-312.pyc
        |-- ... (9 more files)
    |-- _elffile.py
    |-- _manylinux.py
    |-- _musllinux.py
    -- _parser.py
    |-- ... (12 more files)
    |-- licenses/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- spdx.cpython-312.pyc
        -- _spdx.py
|-- packaging-25.0.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
```

```
|-- licenses/
        -- LICENSE
        |-- LICENSE.APACHE
        |-- LICENSE.BSD
-- pandas/
   -- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _typing.cpython-312.pyc
        |-- _version.cpython-312.pyc
        -- _version_meson.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- ... (1 more files)
    |-- _config/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- config.cpython-312.pyc
            |-- dates.cpython-312.pyc
            |-- display.cpython-312.pyc
            |-- localization.cpython-312.pyc
        |-- config.py
        |-- dates.py
        |-- display.py
        |-- localization.py
    |-- libs/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- algos.cp312-win_amd64.lib
        |-- algos.cp312-win_amd64.pyd
        |-- algos.pyi
        |-- arrays.cp312-win_amd64.lib
        |-- ... (75 more files)
        -- tslibs/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
            |-- base.cp312-win_amd64.lib
            |-- base.cp312-win_amd64.pyd
            |-- ccalendar.cp312-win_amd64.lib
            |-- ccalendar.cp312-win_amd64.pyd
            |-- ... (44 more files)
        |-- window/
            |-- __init__.py
            |-- __pycache__/
               -- init .cpython-312.pyc
            |-- aggregations.cp312-win_amd64.lib
            |-- aggregations.cp312-win_amd64.pyd
            |-- aggregations.pyi
            |-- indexers.cp312-win_amd64.lib
            |-- ... (3 more files)
   |-- _testing/
```

```
|-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _hypothesis.cpython-312.pyc
        |-- _io.cpython-312.pyc
        |-- warnings.cpython-312.pyc
        |-- asserters.cpython-312.pyc
        |-- ... (2 more files)
    |-- _hypothesis.py
   |-- _io.py
   |-- _warnings.py
    |-- asserters.py
    |-- ... (3 more files)
-- _typing.py
-- _version.py
|-- _version_meson.py
|-- api/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
    |-- extensions/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
    -- indexers/
       |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
    |-- interchange/
       |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
   |-- types/
       |-- __init__.py
        |-- ___pycache___/
            |-- __init__.cpython-312.pyc
   |-- typing/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
-- arrays/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
|-- compat/
   |-- __init__.py
   |-- pycache /
        -- __init__.cpython-312.pyc
        |-- _constants.cpython-312.pyc
        |-- _optional.cpython-312.pyc
        |-- compressors.cpython-312.pyc
        |-- pickle_compat.cpython-312.pyc
        |-- ... (1 more files)
```

```
-- _constants.py
   |-- _optional.py
   |-- compressors.py
   |-- numpy/
       |-- __init__.py
       -- __pycache__/
           |-- __init__.cpython-312.pyc
           |-- function.cpython-312.pyc
       |-- function.py
   |-- pickle_compat.py
   |-- ... (3 more files)
|-- conftest.py
|-- core/
   |-- __init__.py
   -- __pycache__/
       |-- __init___.cpython-312.pyc
       |-- accessor.cpython-312.pyc
       |-- algorithms.cpython-312.pyc
       |-- api.cpython-312.pyc
        |-- apply.cpython-312.pyc
       |-- ... (17 more files)
   -- _numba/
       |-- __init__.py
       |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- executor.cpython-312.pyc
            |-- extensions.cpython-312.pyc
        |-- executor.py
        |-- extensions.py
        |-- kernels/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- mean_.cpython-312.pyc
                |-- min_max_.cpython-312.pyc
                |-- shared.cpython-312.pyc
                |-- sum_.cpython-312.pyc
                |-- ... (1 more files)
            -- mean_.py
            |-- min_max_.py
            -- shared.py
           |-- sum_.py
            |-- ... (2 more files)
   |-- accessor.py
   |-- algorithms.py
   -- api.py
   -- apply.py
   |-- array_algos/
       |-- __init__.py
       |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- datetimelike_accumulations.cpython-312.pyc
            |-- masked_accumulations.cpython-312.pyc
```

```
|-- masked_reductions.cpython-312.pyc
        |-- putmask.cpython-312.pyc
        |-- ... (4 more files)
    |-- datetimelike_accumulations.py
    |-- masked_accumulations.py
    |-- masked reductions.py
    |-- putmask.py
   |-- ... (5 more files)
|-- ... (36 more files)
|-- arrays/
   |-- __init__.py
    -- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _arrow_string_mixins.cpython-312.pyc
        |-- _mixins.cpython-312.pyc
        |-- _ranges.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- ... (15 more files)
    |-- _arrow_string_mixins.py
    |-- _mixins.py
    -- _ranges.py
   |-- _utils.py
   |-- arrow/
        |-- __init__.py
        |-- __pycache__/
           |-- init .cpython-312.pyc
            |-- arrow utils.cpython-312.pyc
            |-- accessors.cpython-312.pyc
            |-- array.cpython-312.pyc
            |-- extension_types.cpython-312.pyc
        |-- _arrow_utils.py
        |-- accessors.py
        -- array.py
        |-- extension_types.py
    |-- ... (18 more files)
   |-- sparse/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- accessor.cpython-312.pyc
            -- array.cpython-312.pyc
            |-- scipy_sparse.cpython-312.pyc
        |-- accessor.py
        |-- array.py
        |-- scipy_sparse.py
|-- computation/
   |-- init .py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- align.cpython-312.pyc
        |-- api.cpython-312.pyc
        -- check.cpython-312.pyc
        |-- common.cpython-312.pyc
```

```
|-- ... (8 more files)
    |-- align.py
    -- api.py
    |-- check.py
    |-- common.py
    |-- ... (9 more files)
|-- dtypes/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- astype.cpython-312.pyc
        |-- base.cpython-312.pyc
        |-- cast.cpython-312.pyc
        |-- ... (6 more files)
    -- api.py
    -- astype.py
    |-- base.py
    |-- cast.py
    |-- ... (7 more files)
|-- groupby/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- base.cpython-312.pyc
        |-- categorical.cpython-312.pyc
        |-- generic.cpython-312.pyc
        |-- groupby.cpython-312.pyc
        |-- ... (4 more files)
    |-- base.py
    |-- categorical.py
    |-- generic.py
    |-- groupby.py
    |-- ... (5 more files)
|-- indexers/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- objects.cpython-312.pyc
        |-- utils.cpython-312.pyc
    |-- objects.py
    |-- utils.py
|-- indexes/
    -- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- accessors.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- base.cpython-312.pyc
        |-- category.cpython-312.pyc
        |-- ... (9 more files)
    |-- accessors.py
    |-- api.py
```

```
|-- base.py
    -- category.py
    |-- ... (10 more files)
|-- interchange/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- buffer.cpython-312.pyc
        |-- column.cpython-312.pyc
        |-- dataframe.cpython-312.pyc
        |-- dataframe_protocol.cpython-312.pyc
        |-- ... (2 more files)
    |-- buffer.py
    |-- column.py
    |-- dataframe.py
    |-- dataframe_protocol.py
    |-- ... (3 more files)
|-- internals/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- array_manager.cpython-312.pyc
        -- base.cpython-312.pyc
        |-- blocks.cpython-312.pyc
        |-- ... (4 more files)
    |-- api.py
    |-- array_manager.py
    |-- base.py
    |-- blocks.py
    |-- ... (5 more files)
|-- methods/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- describe.cpython-312.pyc
        |-- selectn.cpython-312.pyc
        |-- to_dict.cpython-312.pyc
    |-- describe.py
    |-- selectn.py
    |-- to_dict.py
|-- ops/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- array_ops.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- dispatch.cpython-312.pyc
        |-- docstrings.cpython-312.pyc
        |-- ... (3 more files)
    -- array_ops.py
    |-- common.py
    |-- dispatch.py
```

```
|-- docstrings.py
    |-- ... (4 more files)
-- reshape/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- api.cpython-312.pyc
        -- concat.cpython-312.pyc
        |-- encoding.cpython-312.pyc
        |-- melt.cpython-312.pyc
        |-- ... (5 more files)
    -- api.py
    |-- concat.py
    |-- encoding.py
    |-- melt.py
    |-- ... (6 more files)
|-- sparse/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- api.cpython-312.pyc
   |-- api.py
|-- strings/
   |-- __init__.py
    -- __pycache__/
       |-- init .cpython-312.pyc
        |-- accessor.cpython-312.pyc
        -- base.cpython-312.pyc
        |-- object_array.cpython-312.pyc
    |-- accessor.py
    |-- base.py
    |-- object_array.py
|-- tools/
   |-- __init__.py
    -- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- datetimes.cpython-312.pyc
        |-- numeric.cpython-312.pyc
        |-- timedeltas.cpython-312.pyc
        |-- times.cpython-312.pyc
    |-- datetimes.py
    -- numeric.py
    |-- timedeltas.py
    |-- times.py
|-- util/
    |-- __init__.py
    |-- pycache /
        |-- __init__.cpython-312.pyc
        |-- hashing.cpython-312.pyc
        |-- numba_.cpython-312.pyc
    -- hashing.py
    |-- numba_.py
|-- window/
```

```
-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- common.cpython-312.pyc
            |-- doc.cpython-312.pyc
            |-- ewm.cpython-312.pyc
            |-- expanding.cpython-312.pyc
            |-- ... (3 more files)
        -- common.py
        -- doc.py
        -- ewm.py
        |-- expanding.py
        |-- ... (4 more files)
|-- errors/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
|-- io/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _util.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- clipboards.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- ... (11 more files)
    |-- _util.py
    |-- api.py
    |-- clipboard/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
    |-- clipboards.py
    |-- common.py
    |-- excel/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- _base.cpython-312.pyc
            |-- _calamine.cpython-312.pyc
            |-- _odfreader.cpython-312.pyc
            |-- _odswriter.cpython-312.pyc
            |-- ... (5 more files)
        -- _base.py
        |-- _calamine.py
        |-- _odfreader.py
        |-- odswriter.py
        |-- ... (6 more files)
    |-- ... (18 more files)
    |-- formats/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
```

```
|-- _color_data.cpython-312.pyc
        |-- console.cpython-312.pyc
        |-- css.cpython-312.pyc
        |-- csvs.cpython-312.pyc
        |-- ... (9 more files)
    |-- _color_data.py
    |-- console.py
    -- css.py
    -- csvs.py
    |-- ... (11 more files)
    |-- templates/
        |-- html.tpl
        |-- html style.tpl
        |-- html_table.tpl
        |-- latex.tpl
        |-- latex_longtable.tpl
        |-- ... (2 more files)
|-- json/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _json.cpython-312.pyc
        |-- _normalize.cpython-312.pyc
        |-- _table_schema.cpython-312.pyc
    |-- _json.py
    |-- normalize.py
    |-- _table_schema.py
|-- parsers/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- arrow_parser_wrapper.cpython-312.pyc
        |-- base_parser.cpython-312.pyc
        -- c_parser_wrapper.cpython-312.pyc
        -- python_parser.cpython-312.pyc
        |-- ... (1 more files)
    -- arrow_parser_wrapper.py
    |-- base_parser.py
    -- c_parser_wrapper.py
    |-- python_parser.py
    |-- ... (2 more files)
|-- sas/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- sas7bdat.cpython-312.pyc
        |-- sas_constants.cpython-312.pyc
        |-- sas_xport.cpython-312.pyc
        |-- sasreader.cpython-312.pyc
    |-- sas7bdat.py
    |-- sas_constants.py
    -- sas_xport.py
    |-- sasreader.py
```

```
|-- plotting/
   |-- __init__.py
   -- __pycache__/
       |-- __init___.cpython-312.pyc
       |-- _core.cpython-312.pyc
       |-- misc.cpython-312.pyc
   -- _core.py
   |-- _matplotlib/
       |-- __init__.py
       |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- boxplot.cpython-312.pyc
            |-- converter.cpython-312.pyc
            |-- core.cpython-312.pyc
            -- groupby.cpython-312.pyc
            |-- ... (5 more files)
        -- boxplot.py
        |-- converter.py
       |-- core.py
       -- groupby.py
       |-- ... (6 more files)
   -- _misc.py
|-- ... (16 more files)
-- tests/
   |-- __init__.py
   |-- pycache /
       |-- __init___.cpython-312.pyc
       |-- test_aggregation.cpython-312.pyc
       |-- test_algos.cpython-312.pyc
       |-- test_common.cpython-312.pyc
        |-- test_downstream.cpython-312.pyc
       |-- ... (9 more files)
   |-- api/
       |-- __init__.py
       |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- test_api.cpython-312.pyc
           -- test_types.cpython-312.pyc
       |-- test_api.py
       |-- test_types.py
   |-- apply/
       |-- __init__.py
       |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- common.cpython-312.pyc
            |-- test_frame_apply.cpython-312.pyc
            |-- test frame apply relabeling.cpython-312.pyc
            |-- test frame transform.cpython-312.pyc
            |-- ... (6 more files)
        -- common.py
        |-- test_frame_apply.py
        |-- test_frame_apply_relabeling.py
        |-- test_frame_transform.py
```

```
|-- ... (7 more files)
|-- arithmetic/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test_array_ops.cpython-312.pyc
        |-- test_categorical.cpython-312.pyc
        |-- ... (6 more files)
    -- common.py
    |-- conftest.py
    |-- test_array_ops.py
    |-- test_categorical.py
    |-- ... (7 more files)
|-- arrays/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- masked_shared.cpython-312.pyc
        -- test_array.cpython-312.pyc
        |-- test_datetimelike.cpython-312.pyc
        |-- test_datetimes.cpython-312.pyc
        |-- ... (3 more files)
    -- boolean/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_arithmetic.cpython-312.pyc
            |-- test_astype.cpython-312.pyc
            |-- test_comparison.cpython-312.pyc
            |-- test_construction.cpython-312.pyc
            |-- ... (6 more files)
        |-- test_arithmetic.py
        -- test_astype.py
        |-- test_comparison.py
        |-- test_construction.py
        |-- ... (7 more files)
    |-- categorical/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_algos.cpython-312.pyc
            -- test_analytics.cpython-312.pyc
            -- test_api.cpython-312.pyc
            |-- test_astype.cpython-312.pyc
            |-- ... (12 more files)
        |-- test algos.py
        |-- test_analytics.py
        |-- test_api.py
        |-- test_astype.py
        |-- ... (13 more files)
    |-- datetimes/
```

```
|-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- test_constructors.cpython-312.pyc
        |-- test_cumulative.cpython-312.pyc
        |-- test reductions.cpython-312.pyc
    |-- test_constructors.py
    |-- test_cumulative.py
    |-- test_reductions.py
|-- floating/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        -- test_arithmetic.cpython-312.pyc
        |-- test_astype.cpython-312.pyc
        -- test_comparison.cpython-312.pyc
        |-- ... (6 more files)
   |-- conftest.py
    |-- test_arithmetic.py
    |-- test_astype.py
    |-- test_comparison.py
    |-- ... (7 more files)
|-- integer/
   |-- __init__.py
    |-- pycache /
        |-- __init___.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test_arithmetic.cpython-312.pyc
        -- test_comparison.cpython-312.pyc
        |-- test_concat.cpython-312.pyc
        |-- ... (6 more files)
    |-- conftest.py
    |-- test_arithmetic.py
    -- test_comparison.py
    |-- test concat.py
    |-- ... (7 more files)
|-- interval/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- test_astype.cpython-312.pyc
        |-- test_formats.cpython-312.pyc
        |-- test_interval.cpython-312.pyc
        |-- test_interval_pyarrow.cpython-312.pyc
        |-- ... (1 more files)
    |-- test astype.py
    |-- test formats.py
    |-- test_interval.py
    |-- test_interval_pyarrow.py
    |-- ... (2 more files)
-- masked/
   |-- __init__.py
```

```
|-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- test arithmetic.cpython-312.pyc
        -- test_arrow_compat.cpython-312.pyc
        |-- test_function.cpython-312.pyc
        |-- test indexing.cpython-312.pyc
    |-- test_arithmetic.py
    |-- test_arrow_compat.py
    |-- test_function.py
    |-- test_indexing.py
|-- masked_shared.py
|-- numpy_/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_indexing.cpython-312.pyc
        |-- test_numpy.cpython-312.pyc
    |-- test_indexing.py
   |-- test_numpy.py
|-- period/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_arrow_compat.cpython-312.pyc
        -- test_astype.cpython-312.pyc
        |-- test constructors.cpython-312.pyc
        |-- test reductions.cpython-312.pyc
    -- test_arrow_compat.py
    |-- test_astype.py
    |-- test_constructors.py
    |-- test_reductions.py
-- sparse/
   |-- __init__.py
    |-- pycache /
        |-- __init__.cpython-312.pyc
        |-- test accessor.cpython-312.pyc
        |-- test_arithmetics.cpython-312.pyc
        -- test_array.cpython-312.pyc
        -- test_astype.cpython-312.pyc
        |-- ... (7 more files)
    |-- test_accessor.py
    |-- test_arithmetics.py
    |-- test_array.py
    -- test_astype.py
    |-- ... (8 more files)
|-- string_/
   |-- init .py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_concat.cpython-312.pyc
        |-- test_string.cpython-312.pyc
        |-- test_string_arrow.cpython-312.pyc
    |-- test_concat.py
```

```
-- test_string.py
        |-- test_string_arrow.py
    |-- test_array.py
    |-- test_datetimelike.py
    |-- test_datetimes.py
    |-- ... (16 more files)
    |-- timedeltas/
        |-- __init__.py
        |-- __pycache_ /
            -- __init__.cpython-312.pyc
            -- test_constructors.cpython-312.pyc
            |-- test_cumulative.cpython-312.pyc
            |-- test reductions.cpython-312.pyc
        |-- test_constructors.py
        |-- test_cumulative.py
        |-- test reductions.py
-- base/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- test_constructors.cpython-312.pyc
        |-- test_conversion.cpython-312.pyc
        |-- test_fillna.cpython-312.pyc
        |-- ... (4 more files)
    |-- common.py
    |-- test constructors.py
    |-- test_conversion.py
    |-- test_fillna.py
    |-- ... (5 more files)
|-- computation/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        -- test_compat.cpython-312.pyc
        |-- test eval.cpython-312.pyc
    |-- test_compat.py
   |-- test_eval.py
|-- config/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_config.cpython-312.pyc
        |-- test_localization.cpython-312.pyc
    |-- test_config.py
    |-- test_localization.py
|-- construction/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_extract_array.cpython-312.pyc
    |-- test_extract_array.py
|-- copy_view/
```

```
-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        -- test_array.cpython-312.pyc
        -- test_astype.cpython-312.pyc
        |-- test chained assignment deprecation.cpython-312.pyc
        -- test_clip.cpython-312.pyc
        |-- ... (11 more files)
    |-- index/
       |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- test datetimeindex.cpython-312.pyc
            |-- test_index.cpython-312.pyc
            |-- test_periodindex.cpython-312.pyc
            |-- test timedeltaindex.cpython-312.pyc
        |-- test_datetimeindex.py
        |-- test_index.py
        |-- test_periodindex.py
        |-- test_timedeltaindex.py
    |-- test_array.py
    -- test_astype.py
    |-- test_chained_assignment_deprecation.py
    |-- test_clip.py
    |-- ... (13 more files)
|-- dtypes/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
       |-- test_common.cpython-312.pyc
        |-- test_concat.cpython-312.pyc
        -- test_dtypes.cpython-312.pyc
        |-- test_generic.cpython-312.pyc
        |-- ... (2 more files)
   |-- cast/
       |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- test_can_hold_element.cpython-312.pyc
            |-- test_construct_from_scalar.cpython-312.pyc
            -- test_construct_ndarray.cpython-312.pyc
            |-- test_construct_object_arr.cpython-312.pyc
            |-- ... (7 more files)
        |-- test_can_hold_element.py
        |-- test_construct_from_scalar.py
        |-- test_construct_ndarray.py
        |-- test construct object arr.py
        |-- ... (8 more files)
    |-- test_common.py
    |-- test_concat.py
    |-- test_dtypes.py
    |-- test_generic.py
    |-- ... (4 more files)
```

```
|-- extension/
   |-- __init__.py
   |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test arrow.cpython-312.pyc
        |-- test_categorical.cpython-312.pyc
        |-- test_common.cpython-312.pyc
        |-- ... (8 more files)
   |-- array_with_attr/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- array.cpython-312.pyc
            -- test_array_with_attr.cpython-312.pyc
        |-- array.py
        |-- test_array_with_attr.py
   |-- base/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- accumulate.cpython-312.pyc
            |-- base.cpython-312.pyc
            |-- casting.cpython-312.pyc
            |-- constructors.cpython-312.pyc
            |-- ... (14 more files)
       |-- accumulate.py
        |-- base.py
        |-- casting.py
        |-- constructors.py
        |-- ... (15 more files)
    |-- conftest.py
    -- date/
       |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- array.cpython-312.pyc
       -- array.py
    |-- decimal/
        |-- __init__.py
       |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- array.cpython-312.pyc
            |-- test_decimal.cpython-312.pyc
        -- array.py
       |-- test_decimal.py
    |-- json/
       -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- array.cpython-312.pyc
            |-- test_json.cpython-312.pyc
        |-- array.py
```

```
|-- test_json.py
   |-- list/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- array.cpython-312.pyc
            |-- test_list.cpython-312.pyc
        |-- array.py
       |-- test_list.py
    |-- test_arrow.py
    |-- test_categorical.py
    |-- test_common.py
   |-- ... (15 more files)
|-- frame/
   |-- __init__.py
   |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test_alter_axes.cpython-312.pyc
        |-- test_api.cpython-312.pyc
        |-- ... (17 more files)
    |-- common.py
    |-- conftest.py
    |-- constructors/
       -- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_from_dict.cpython-312.pyc
            |-- test_from_records.cpython-312.pyc
        |-- test_from_dict.py
        |-- test_from_records.py
    |-- indexing/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test_coercion.cpython-312.pyc
            |-- test_delitem.cpython-312.pyc
            |-- test_get.cpython-312.pyc
            |-- test_get_value.cpython-312.pyc
            |-- ... (9 more files)
        |-- test_coercion.py
        |-- test_delitem.py
        |-- test_get.py
        |-- test_get_value.py
        |-- ... (10 more files)
    |-- methods/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_add_prefix_suffix.cpython-312.pyc
            |-- test_align.cpython-312.pyc
            |-- test_asfreq.cpython-312.pyc
```

```
-- test_asof.cpython-312.pyc
            |-- ... (77 more files)
        |-- test_add_prefix_suffix.py
        |-- test_align.py
        |-- test_asfreq.py
        |-- test asof.py
        |-- ... (78 more files)
    |-- test_alter_axes.py
    |-- test_api.py
    |-- ... (21 more files)
|-- generic/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_duplicate_labels.cpython-312.pyc
        |-- test finalize.cpython-312.pyc
        |-- test_frame.cpython-312.pyc
        |-- test_generic.cpython-312.pyc
        |-- ... (3 more files)
    |-- test_duplicate_labels.py
    |-- test_finalize.py
    |-- test_frame.py
    |-- test_generic.py
    |-- ... (4 more files)
-- groupby/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test_all_methods.cpython-312.pyc
        |-- test_api.cpython-312.pyc
        |-- test_apply.cpython-312.pyc
        |-- ... (20 more files)
    |-- aggregate/
        -- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- test_aggregate.cpython-312.pyc
            |-- test_cython.cpython-312.pyc
            |-- test_numba.cpython-312.pyc
            -- test_other.cpython-312.pyc
        |-- test_aggregate.py
        |-- test_cython.py
        |-- test_numba.py
        |-- test_other.py
    |-- conftest.py
    |-- methods/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_corrwith.cpython-312.pyc
            |-- test_describe.cpython-312.pyc
            |-- test_groupby_shift_diff.cpython-312.pyc
```

```
|-- test_is_monotonic.cpython-312.pyc
            |-- ... (8 more files)
        |-- test corrwith.py
        |-- test_describe.py
        |-- test_groupby_shift_diff.py
        |-- test is monotonic.py
        |-- ... (9 more files)
    |-- test_all_methods.py
    |-- test_api.py
    |-- test_apply.py
    |-- ... (24 more files)
    |-- transform/
       |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_numba.cpython-312.pyc
            |-- test_transform.cpython-312.pyc
        -- test_numba.py
        |-- test_transform.py
|-- indexes/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test_any_index.cpython-312.pyc
        |-- test base.cpython-312.pyc
        |-- test common.cpython-312.pyc
        |-- ... (9 more files)
    |-- base_class/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_constructors.cpython-312.pyc
            |-- test_formats.cpython-312.pyc
            |-- test_indexing.cpython-312.pyc
            |-- test_pickle.cpython-312.pyc
            |-- ... (3 more files)
       |-- test_constructors.py
        |-- test_formats.py
        |-- test_indexing.py
        |-- test_pickle.py
       |-- ... (4 more files)
    |-- categorical/
       |-- __init__.py
       |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test append.cpython-312.pyc
            -- test_astype.cpython-312.pyc
            -- test_category.cpython-312.pyc
            |-- test_constructors.cpython-312.pyc
            |-- ... (7 more files)
        -- test_append.py
        |-- test_astype.py
```

```
-- test_category.py
    |-- test_constructors.py
    |-- ... (8 more files)
|-- conftest.py
|-- datetimelike_/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_drop_duplicates.cpython-312.pyc
        |-- test_equals.cpython-312.pyc
        |-- test_indexing.cpython-312.pyc
        |-- test_is_monotonic.cpython-312.pyc
        |-- ... (3 more files)
    |-- test_drop_duplicates.py
    |-- test_equals.py
    |-- test indexing.py
    |-- test_is_monotonic.py
    |-- ... (4 more files)
|-- datetimes/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test arithmetic.cpython-312.pyc
        |-- test_constructors.cpython-312.pyc
        |-- test_date_range.cpython-312.pyc
        |-- test datetime.cpython-312.pyc
        |-- ... (13 more files)
    |-- methods/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_asof.cpython-312.pyc
            |-- test_astype.cpython-312.pyc
            |-- test_delete.cpython-312.pyc
            |-- test_factorize.cpython-312.pyc
            |-- ... (18 more files)
        |-- test_asof.py
        |-- test_astype.py
        -- test_delete.py
        |-- test_factorize.py
        |-- ... (19 more files)
    |-- test_arithmetic.py
    |-- test_constructors.py
    -- test_date_range.py
    |-- test_datetime.py
    |-- ... (15 more files)
|-- interval/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_astype.cpython-312.pyc
        |-- test_constructors.cpython-312.pyc
        |-- test_equals.cpython-312.pyc
```

```
-- test_formats.cpython-312.pyc
        |-- ... (7 more files)
    |-- test_astype.py
    |-- test_constructors.py
    |-- test_equals.py
    |-- test formats.py
    |-- ... (8 more files)
|-- multi/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test_analytics.cpython-312.pyc
        -- test_astype.cpython-312.pyc
        |-- test_compat.cpython-312.pyc
        |-- ... (24 more files)
    |-- conftest.py
    |-- test_analytics.py
    |-- test_astype.py
    |-- test_compat.py
    |-- ... (25 more files)
|-- numeric/
    |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- test astype.cpython-312.pyc
        |-- test indexing.cpython-312.pyc
        |-- test_join.cpython-312.pyc
        |-- test_numeric.cpython-312.pyc
        |-- ... (1 more files)
    |-- test_astype.py
    |-- test_indexing.py
    |-- test_join.py
    |-- test_numeric.py
    |-- ... (2 more files)
|-- object/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_astype.cpython-312.pyc
        -- test_indexing.cpython-312.pyc
    |-- test_astype.py
    |-- test_indexing.py
|-- period/
    -- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test constructors.cpython-312.pyc
        |-- test_formats.cpython-312.pyc
        |-- test_freq_attr.cpython-312.pyc
        |-- test_indexing.cpython-312.pyc
        |-- ... (11 more files)
    |-- methods/
```

```
|-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test_asfreq.cpython-312.pyc
            |-- test_astype.cpython-312.pyc
            |-- test factorize.cpython-312.pyc
            |-- test_fillna.cpython-312.pyc
            |-- ... (5 more files)
        |-- test_asfreq.py
        |-- test_astype.py
        |-- test_factorize.py
        |-- test_fillna.py
        |-- ... (6 more files)
    |-- test_constructors.py
    |-- test_formats.py
    |-- test freq attr.py
    |-- test_indexing.py
    |-- ... (13 more files)
|-- ranges/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test constructors.cpython-312.pyc
        |-- test_indexing.cpython-312.pyc
        |-- test_join.cpython-312.pyc
        |-- test range.cpython-312.pyc
        |-- ... (1 more files)
    -- test_constructors.py
    |-- test_indexing.py
    |-- test_join.py
    |-- test_range.py
    |-- ... (2 more files)
|-- string/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_astype.cpython-312.pyc
        |-- test_indexing.cpython-312.pyc
    -- test_astype.py
    |-- test_indexing.py
|-- test_any_index.py
|-- test_base.py
|-- test_common.py
|-- ... (22 more files)
|-- timedeltas/
    |-- __init__.py
    |-- pycache /
        -- __init__.cpython-312.pyc
        -- test_arithmetic.cpython-312.pyc
        |-- test_constructors.cpython-312.pyc
        |-- test_delete.cpython-312.pyc
        |-- test_formats.cpython-312.pyc
        |-- ... (10 more files)
```

```
|-- methods/
            |-- __init__.py
            |-- __pycache__/
               |-- __init__.cpython-312.pyc
                -- test_astype.cpython-312.pyc
                |-- test factorize.cpython-312.pyc
                |-- test_fillna.cpython-312.pyc
                |-- test_insert.cpython-312.pyc
                |-- ... (2 more files)
            |-- test_astype.py
            |-- test_factorize.py
            |-- test_fillna.py
            |-- test insert.py
            |-- ... (3 more files)
        |-- test_arithmetic.py
        |-- test_constructors.py
        |-- test_delete.py
        |-- test_formats.py
        |-- ... (12 more files)
|-- indexing/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test at.cpython-312.pyc
        |-- test categorical.cpython-312.pyc
        |-- ... (13 more files)
    |-- common.py
    |-- conftest.py
    |-- interval/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- test_interval.cpython-312.pyc
            |-- test interval new.cpython-312.pyc
        |-- test_interval.py
       |-- test_interval_new.py
    |-- multiindex/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_chaining_and_caching.cpython-312.pyc
            |-- test_datetime.cpython-312.pyc
            |-- test_getitem.cpython-312.pyc
            |-- test_iloc.cpython-312.pyc
            |-- ... (7 more files)
        |-- test_chaining_and_caching.py
        |-- test_datetime.py
        |-- test_getitem.py
        |-- test_iloc.py
        |-- ... (8 more files)
    -- test_at.py
```

```
|-- test_categorical.py
    |-- ... (16 more files)
|-- interchange/
   |-- __init__.py
    |-- __pycache__/
        |-- init .cpython-312.pyc
        |-- test_impl.cpython-312.pyc
        |-- test_spec_conformance.cpython-312.pyc
        |-- test_utils.cpython-312.pyc
    |-- test_impl.py
    |-- test_spec_conformance.py
    |-- test_utils.py
|-- internals/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- test_api.cpython-312.pyc
        -- test_internals.cpython-312.pyc
        |-- test_managers.cpython-312.pyc
    |-- test_api.py
    |-- test_internals.py
    |-- test_managers.py
|-- io/
   |-- __init__.py
    |-- __pycache__/
       |-- init .cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- generate_legacy_storage_files.cpython-312.pyc
        |-- test_clipboard.cpython-312.pyc
        |-- test_common.cpython-312.pyc
        |-- ... (14 more files)
    |-- conftest.py
    |-- excel/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_odf.cpython-312.pyc
            |-- test_odswriter.cpython-312.pyc
            -- test_openpyxl.cpython-312.pyc
            |-- test_readers.cpython-312.pyc
            |-- ... (4 more files)
        -- test_odf.py
        |-- test_odswriter.py
        -- test_openpyxl.py
        -- test_readers.py
        |-- ... (5 more files)
    |-- formats/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_console.cpython-312.pyc
            -- test_css.cpython-312.pyc
            |-- test_eng_formatting.cpython-312.pyc
```

```
-- test_format.cpython-312.pyc
        |-- ... (8 more files)
    |-- style/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_bar.cpython-312.pyc
            |-- test_exceptions.cpython-312.pyc
            |-- test_format.cpython-312.pyc
            |-- test_highlight.cpython-312.pyc
            |-- ... (7 more files)
        -- test_bar.py
        |-- test_exceptions.py
        |-- test_format.py
        -- test_highlight.py
        |-- ... (8 more files)
    |-- test_console.py
    -- test_css.py
    |-- test_eng_formatting.py
    |-- test_format.py
    |-- ... (10 more files)
|-- generate_legacy_storage_files.py
|-- json/
    |-- __init__.py
    |-- __pycache__/
        |-- init .cpython-312.pyc
        |-- conftest.cpython-312.pyc
        -- test_compression.cpython-312.pyc
        -- test_deprecated_kwargs.cpython-312.pyc
        -- test_json_table_schema.cpython-312.pyc
        |-- ... (5 more files)
    |-- conftest.py
    |-- test_compression.py
    |-- test_deprecated_kwargs.py
    |-- test_json_table_schema.py
    |-- ... (6 more files)
|-- parser/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        -- test_c_parser_only.cpython-312.pyc
        |-- test_comment.cpython-312.pyc
        |-- test_compression.cpython-312.pyc
        |-- ... (18 more files)
    |-- common/
        |-- init .py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_chunksize.cpython-312.pyc
            -- test_common_basic.cpython-312.pyc
            |-- test_data_list.cpython-312.pyc
            |-- test_decimal.cpython-312.pyc
```

```
|-- ... (8 more files)
        |-- test_chunksize.py
        |-- test_common_basic.py
        |-- test_data_list.py
        |-- test_decimal.py
        |-- ... (9 more files)
    |-- conftest.py
    |-- dtypes/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_categorical.cpython-312.pyc
            |-- test_dtypes_basic.cpython-312.pyc
            |-- test_empty.cpython-312.pyc
        |-- test_categorical.py
        |-- test_dtypes_basic.py
        |-- test_empty.py
    |-- test_c_parser_only.py
    |-- test_comment.py
    |-- test_compression.py
    |-- ... (22 more files)
    |-- usecols/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test parse dates.cpython-312.pyc
            |-- test strings.cpython-312.pyc
            -- test_usecols_basic.cpython-312.pyc
        |-- test_parse_dates.py
        |-- test_strings.py
        |-- test_usecols_basic.py
|-- pytables/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        -- test_append.cpython-312.pyc
        |-- test_categorical.cpython-312.pyc
        |-- ... (15 more files)
    |-- common.py
   |-- conftest.py
    |-- test_append.py
    |-- test_categorical.py
    |-- ... (16 more files)
|-- sas/
   |-- init .py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_byteswap.cpython-312.pyc
        -- test_sas.cpython-312.pyc
        -- test_sas7bdat.cpython-312.pyc
        |-- test_xport.cpython-312.pyc
```

```
-- test_byteswap.py
        -- test_sas.py
        -- test_sas7bdat.py
        |-- test_xport.py
    |-- test_clipboard.py
    |-- test common.py
    |-- ... (22 more files)
    |-- xml/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- conftest.cpython-312.pyc
            -- test_to_xml.cpython-312.pyc
            |-- test_xml.cpython-312.pyc
            -- test_xml_dtypes.cpython-312.pyc
        |-- conftest.py
        |-- test_to_xml.py
        -- test_xml.py
        |-- test_xml_dtypes.py
|-- libs/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_hashtable.cpython-312.pyc
        |-- test_join.cpython-312.pyc
        |-- test lib.cpython-312.pyc
        |-- test libalgos.cpython-312.pyc
    |-- test_hashtable.py
    -- test_join.py
    |-- test_lib.py
    |-- test_libalgos.py
|-- plotting/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test_backend.cpython-312.pyc
        -- test_boxplot_method.cpython-312.pyc
        |-- ... (8 more files)
    |-- common.py
    |-- conftest.py
    |-- frame/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test frame.cpython-312.pyc
            |-- test_frame_color.cpython-312.pyc
            |-- test_frame_groupby.cpython-312.pyc
            |-- test_frame_legend.cpython-312.pyc
            |-- ... (2 more files)
        |-- test_frame.py
        |-- test_frame_color.py
```

```
-- test_frame_groupby.py
        |-- test_frame_legend.py
        |-- ... (3 more files)
    |-- test_backend.py
    |-- test_boxplot_method.py
    |-- ... (10 more files)
|-- reductions/
    |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- test_reductions.cpython-312.pyc
        |-- test_stat_reductions.cpython-312.pyc
    |-- test reductions.py
    |-- test_stat_reductions.py
-- resample/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
       |-- conftest.cpython-312.pyc
        |-- test_base.cpython-312.pyc
        |-- test_datetime_index.cpython-312.pyc
        |-- test_period_index.cpython-312.pyc
        |-- ... (4 more files)
    |-- conftest.py
    -- test_base.py
    |-- test datetime index.py
    |-- test period index.py
    |-- ... (5 more files)
-- reshape/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- test_crosstab.cpython-312.pyc
        -- test_cut.cpython-312.pyc
        |-- test_from_dummies.cpython-312.pyc
        |-- test_get_dummies.cpython-312.pyc
        |-- ... (6 more files)
    |-- concat/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- conftest.cpython-312.pyc
            |-- test_append.cpython-312.pyc
            -- test_append_common.cpython-312.pyc
            |-- test_categorical.cpython-312.pyc
            |-- ... (8 more files)
        |-- conftest.py
        |-- test_append.py
        |-- test_append_common.py
        |-- test_categorical.py
        |-- ... (9 more files)
    -- merge/
       |-- __init__.py
```

```
|-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test_join.cpython-312.pyc
            |-- test_merge.cpython-312.pyc
            |-- test_merge_asof.cpython-312.pyc
            |-- test merge cross.cpython-312.pyc
            |-- ... (3 more files)
        |-- test_join.py
        |-- test_merge.py
        -- test_merge_asof.py
        -- test_merge_cross.py
        |-- ... (4 more files)
    |-- test crosstab.py
    |-- test_cut.py
    |-- test_from_dummies.py
    |-- test_get_dummies.py
    |-- ... (9 more files)
|-- scalar/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test_na_scalar.cpython-312.pyc
        |-- test_nat.cpython-312.pyc
    |-- interval/
        |-- __init__.py
        |-- pycache /
            |-- __init___.cpython-312.pyc
            |-- test_arithmetic.cpython-312.pyc
            |-- test_constructors.cpython-312.pyc
            |-- test_contains.cpython-312.pyc
            |-- test_formats.cpython-312.pyc
            |-- ... (2 more files)
        |-- test_arithmetic.py
        |-- test_constructors.py
        |-- test_contains.py
        |-- test formats.py
        |-- ... (3 more files)
    |-- period/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_arithmetic.cpython-312.pyc
            |-- test_asfreq.cpython-312.pyc
            |-- test_period.cpython-312.pyc
        |-- test_arithmetic.py
        |-- test_asfreq.py
        |-- test period.py
    |-- test_na_scalar.py
    |-- test_nat.py
    |-- timedelta/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
```

```
-- test_arithmetic.cpython-312.pyc
            |-- test_constructors.cpython-312.pyc
            |-- test_formats.cpython-312.pyc
            |-- test_timedelta.cpython-312.pyc
        |-- methods/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_as_unit.cpython-312.pyc
                |-- test_round.cpython-312.pyc
            |-- test_as_unit.py
            |-- test_round.py
        |-- test arithmetic.py
        |-- test_constructors.py
        -- test_formats.py
        |-- test_timedelta.py
    |-- timestamp/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_arithmetic.cpython-312.pyc
            -- test_comparisons.cpython-312.pyc
            |-- test_constructors.cpython-312.pyc
            |-- test_formats.cpython-312.pyc
            |-- ... (2 more files)
        |-- methods/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- test_as_unit.cpython-312.pyc
                |-- test_normalize.cpython-312.pyc
                |-- test_replace.cpython-312.pyc
                |-- test_round.cpython-312.pyc
                |-- ... (5 more files)
            |-- test_as_unit.py
            |-- test normalize.py
            |-- test_replace.py
            |-- test_round.py
            |-- ... (6 more files)
        |-- test_arithmetic.py
        |-- test_comparisons.py
        |-- test_constructors.py
        |-- test_formats.py
        |-- ... (4 more files)
|-- series/
   |-- __init__.py
   |-- pycache /
        |-- __init__.cpython-312.pyc
        |-- test_api.cpython-312.pyc
        |-- test_arithmetic.cpython-312.pyc
        -- test_constructors.cpython-312.pyc
        |-- test_cumulative.cpython-312.pyc
        |-- ... (10 more files)
```

```
|-- accessors/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            -- test_cat_accessor.cpython-312.pyc
            |-- test dt accessor.cpython-312.pyc
            |-- test_list_accessor.cpython-312.pyc
            -- test_sparse_accessor.cpython-312.pyc
            |-- ... (2 more files)
        |-- test_cat_accessor.py
        |-- test_dt_accessor.py
        |-- test_list_accessor.py
        |-- test_sparse_accessor.py
        |-- ... (3 more files)
   |-- indexing/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_datetime.cpython-312.pyc
            |-- test_delitem.cpython-312.pyc
            -- test_get.cpython-312.pyc
            -- test_getitem.cpython-312.pyc
            |-- ... (7 more files)
        |-- test_datetime.py
        |-- test_delitem.py
        |-- test get.py
        |-- test getitem.py
        |-- ... (8 more files)
    |-- methods/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_add_prefix_suffix.cpython-312.pyc
            |-- test_align.cpython-312.pyc
            |-- test_argsort.cpython-312.pyc
            |-- test asof.cpython-312.pyc
            |-- ... (66 more files)
        |-- test_add_prefix_suffix.py
        |-- test_align.py
        |-- test_argsort.py
        |-- test_asof.py
        |-- ... (67 more files)
    |-- test_api.py
    |-- test_arithmetic.py
    |-- test_constructors.py
    |-- test_cumulative.py
    |-- ... (14 more files)
|-- strings/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test_api.cpython-312.pyc
```

```
|-- test_case_justify.cpython-312.pyc
        |-- test_cat.cpython-312.pyc
        |-- ... (6 more files)
    |-- conftest.py
    |-- test_api.py
    |-- test case justify.py
    |-- test_cat.py
    |-- ... (7 more files)
|-- test_aggregation.py
|-- test_algos.py
|-- test_common.py
|-- test_downstream.py
|-- ... (42 more files)
|-- tools/
   -- __init__.py
   |-- __pycache__/
        |-- __init___.cpython-312.pyc
        -- test_to_datetime.cpython-312.pyc
        |-- test_to_numeric.cpython-312.pyc
        |-- test_to_time.cpython-312.pyc
        |-- test_to_timedelta.cpython-312.pyc
    |-- test_to_datetime.py
   |-- test_to_numeric.py
    -- test_to_time.py
   |-- test_to_timedelta.py
|-- tseries/
   -- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
   |-- frequencies/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_freq_code.cpython-312.pyc
            |-- test_frequencies.cpython-312.pyc
            |-- test inference.cpython-312.pyc
        |-- test_freq_code.py
        |-- test_frequencies.py
        |-- test_inference.py
    |-- holiday/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_calendar.cpython-312.pyc
            |-- test_federal.cpython-312.pyc
            |-- test_holiday.cpython-312.pyc
            |-- test observance.cpython-312.pyc
        |-- test calendar.py
        |-- test_federal.py
        |-- test_holiday.py
        |-- test_observance.py
    -- offsets/
       |-- __init__.py
```

```
|-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- common.cpython-312.pyc
            |-- test_business_day.cpython-312.pyc
            |-- test_business_hour.cpython-312.pyc
            |-- test business month.cpython-312.pyc
            |-- ... (17 more files)
        |-- common.py
        |-- test_business_day.py
        |-- test_business_hour.py
        |-- test_business_month.py
        |-- ... (18 more files)
|-- tslibs/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- test_api.cpython-312.pyc
        |-- test_array_to_datetime.cpython-312.pyc
        -- test_ccalendar.cpython-312.pyc
        |-- test_conversion.cpython-312.pyc
        |-- ... (14 more files)
    |-- test_api.py
    |-- test_array_to_datetime.py
    |-- test_ccalendar.py
    |-- test_conversion.py
    |-- ... (15 more files)
|-- util/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        -- test_assert_almost_equal.cpython-312.pyc
        -- test_assert_attr_equal.cpython-312.pyc
        |-- test_assert_categorical_equal.cpython-312.pyc
        |-- ... (21 more files)
    |-- conftest.py
    |-- test_assert_almost_equal.py
    |-- test_assert_attr_equal.py
    |-- test_assert_categorical_equal.py
    |-- ... (22 more files)
|-- window/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- conftest.cpython-312.pyc
        |-- test_api.cpython-312.pyc
        |-- test apply.cpython-312.pyc
        |-- test base indexer.cpython-312.pyc
        |-- ... (14 more files)
    |-- conftest.py
    |-- moments/
        |-- __init__.py
        |-- __pycache__/
```

```
-- __init__.cpython-312.pyc
                    |-- conftest.cpython-312.pyc
                    |-- test_moments_consistency_ewm.cpython-312.pyc
                    |-- test_moments_consistency_expanding.cpython-312.pyc
                    |-- test_moments_consistency_rolling.cpython-312.pyc
                |-- conftest.py
                |-- test_moments_consistency_ewm.py
                |-- test_moments_consistency_expanding.py
                |-- test_moments_consistency_rolling.py
            |-- test_api.py
            -- test_apply.py
            |-- test_base_indexer.py
            |-- ... (16 more files)
    |-- tseries/
       -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- api.cpython-312.pyc
            |-- frequencies.cpython-312.pyc
            |-- holiday.cpython-312.pyc
            |-- offsets.cpython-312.pyc
        |-- api.py
        |-- frequencies.py
        |-- holiday.py
        -- offsets.py
    |-- util/
       |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- _decorators.cpython-312.pyc
            |-- _doctools.cpython-312.pyc
            |-- _exceptions.cpython-312.pyc
            |-- _print_versions.cpython-312.pyc
            |-- ... (3 more files)
        |-- _decorators.py
        |-- doctools.py
        |-- _exceptions.py
        |-- _print_versions.py
        |-- ... (5 more files)
        |-- version/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
|-- pandas-2.3.0.dist-info/
   -- DELVEWHEEL
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
   |-- ... (2 more files)
|-- pandas.libs/
    -- msvcp140-1a0962f2a91a74c6d7136a768987a591.dll
|-- pillow-11.2.1.dist-info/
```

```
-- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- licenses/
        -- LICENSE
    |-- top_level.txt
    |-- ... (2 more files)
|-- pillow_heif/
    |-- AvifImagePlugin.py
    |-- HeifImagePlugin.py
    |-- __init__.py
    |-- __pycache__/
        |-- AvifImagePlugin.cpython-312.pyc
        |-- HeifImagePlugin.cpython-312.pyc
        |-- __init__.cpython-312.pyc
        |-- _deffered_error.cpython-312.pyc
        |-- _lib_info.cpython-312.pyc
        |-- ... (6 more files)
    |-- _deffered_error.py
    |-- _lib_info.py
    |-- ... (7 more files)
|-- pillow_heif-0.22.0.dist-info/
    -- DELVEWHEEL
    -- INSTALLER
    |-- LICENSE.txt
    |-- LICENSES bundled.txt
    -- METADATA
    |-- ... (4 more files)
|-- pip/
    |-- __init__.py
    |-- __main__.py
    -- __pip-runner__.py
    -- __pycache__/
        -- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        -- __pip-runner__.cpython-312.pyc
    |-- _internal/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- build_env.cpython-312.pyc
            |-- cache.cpython-312.pyc
            |-- configuration.cpython-312.pyc
            |-- exceptions.cpython-312.pyc
            |-- ... (4 more files)
        |-- build env.py
        -- cache.py
        |-- cli/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- autocompletion.cpython-312.pyc
```

```
-- base_command.cpython-312.pyc
        |-- cmdoptions.cpython-312.pyc
        |-- command_context.cpython-312.pyc
        |-- ... (7 more files)
    |-- autocompletion.py
    |-- base command.py
    |-- cmdoptions.py
    |-- command_context.py
    |-- ... (8 more files)
|-- commands/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- cache.cpython-312.pyc
        -- check.cpython-312.pyc
        |-- completion.cpython-312.pyc
        |-- configuration.cpython-312.pyc
        |-- ... (13 more files)
    |-- cache.py
    -- check.py
    |-- completion.py
    |-- configuration.py
    |-- ... (14 more files)
|-- configuration.py
|-- distributions/
    |-- __init__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- base.cpython-312.pyc
        |-- installed.cpython-312.pyc
        |-- sdist.cpython-312.pyc
        |-- wheel.cpython-312.pyc
    |-- base.py
    |-- installed.py
    |-- sdist.py
    |-- wheel.py
|-- exceptions.py
|-- index/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- collector.cpython-312.pyc
        |-- package_finder.cpython-312.pyc
        |-- sources.cpython-312.pyc
    |-- collector.py
    |-- package_finder.py
    -- sources.py
|-- locations/
   |-- __init__.py
    -- __pycache__/
       -- __init__.cpython-312.pyc
        |-- _distutils.cpython-312.pyc
        |-- _sysconfig.cpython-312.pyc
```

```
|-- base.cpython-312.pyc
    |-- _distutils.py
    |-- _sysconfig.py
    |-- base.py
|-- ... (18 more files)
|-- metadata/
    |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _json.cpython-312.pyc
        |-- base.cpython-312.pyc
        |-- pkg_resources.cpython-312.pyc
    |-- _json.py
    -- base.py
    |-- importlib/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _compat.cpython-312.pyc
            |-- _dists.cpython-312.pyc
            -- _envs.cpython-312.pyc
        -- _compat.py
        |-- _dists.py
        -- _envs.py
    |-- pkg_resources.py
|-- models/
   -- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
       |-- candidate.cpython-312.pyc
        |-- direct_url.cpython-312.pyc
        -- format_control.cpython-312.pyc
        |-- index.cpython-312.pyc
        |-- ... (7 more files)
    |-- candidate.py
    |-- direct_url.py
    |-- format_control.py
    -- index.py
    |-- ... (8 more files)
|-- network/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- auth.cpython-312.pyc
        |-- cache.cpython-312.pyc
        |-- download.cpython-312.pyc
        |-- lazy wheel.cpython-312.pyc
        |-- ... (3 more files)
    |-- auth.py
    |-- cache.py
    |-- download.py
    -- lazy_wheel.py
    |-- ... (4 more files)
```

```
|-- operations/
    |-- __init__.py
    |-- ___pycache___/
        |-- __init___.cpython-312.pyc
        |-- check.cpython-312.pyc
        |-- freeze.cpython-312.pyc
        |-- prepare.cpython-312.pyc
    |-- build/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- build_tracker.cpython-312.pyc
            |-- metadata.cpython-312.pyc
            |-- metadata_editable.cpython-312.pyc
            -- metadata_legacy.cpython-312.pyc
            |-- ... (3 more files)
        |-- build_tracker.py
        |-- metadata.py
        |-- metadata_editable.py
        |-- metadata_legacy.py
        |-- ... (4 more files)
    |-- check.py
    |-- freeze.py
    |-- install/
        |-- __init__.py
        |-- pycache /
            |-- __init__.cpython-312.pyc
            |-- editable_legacy.cpython-312.pyc
            |-- wheel.cpython-312.pyc
        |-- editable_legacy.py
        |-- wheel.py
    -- prepare.py
|-- req/
   -- __init__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- constructors.cpython-312.pyc
        |-- req_file.cpython-312.pyc
        |-- req_install.cpython-312.pyc
        -- req_set.cpython-312.pyc
        |-- ... (1 more files)
    |-- constructors.py
    |-- req_file.py
    |-- req_install.py
    -- req_set.py
    |-- ... (2 more files)
|-- resolution/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- base.cpython-312.pyc
    -- base.py
    |-- legacy/
```

```
|-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- resolver.cpython-312.pyc
            -- resolver.py
        |-- resolvelib/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- base.cpython-312.pyc
                |-- candidates.cpython-312.pyc
                |-- factory.cpython-312.pyc
                |-- found_candidates.cpython-312.pyc
                |-- ... (4 more files)
            |-- base.py
            |-- candidates.py
            |-- factory.py
            |-- found_candidates.py
            |-- ... (5 more files)
    |-- utils/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- _jaraco_text.cpython-312.pyc
            |-- _log.cpython-312.pyc
            |-- appdirs.cpython-312.pyc
            |-- compat.cpython-312.pyc
            |-- ... (23 more files)
        |-- _jaraco_text.py
        |-- _log.py
        |-- appdirs.py
        |-- compat.py
        |-- ... (24 more files)
    |-- vcs/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- bazaar.cpython-312.pyc
            |-- git.cpython-312.pyc
            |-- mercurial.cpython-312.pyc
            |-- subversion.cpython-312.pyc
            |-- ... (1 more files)
        -- bazaar.py
        |-- git.py
        |-- mercurial.py
        |-- subversion.py
        |-- ... (2 more files)
-- _vendor/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- six.cpython-312.pyc
        |-- typing_extensions.cpython-312.pyc
```

```
|-- cachecontrol/
    |-- __init__.py
    |-- ___pycache___/
        |-- __init___.cpython-312.pyc
        |-- _cmd.cpython-312.pyc
        |-- adapter.cpython-312.pyc
        |-- cache.cpython-312.pyc
        |-- compat.cpython-312.pyc
        |-- ... (5 more files)
    |-- _cmd.py
    -- adapter.py
    |-- cache.py
    |-- caches/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- file_cache.cpython-312.pyc
            |-- redis_cache.cpython-312.pyc
        |-- file_cache.py
        |-- redis_cache.py
    |-- compat.py
    |-- ... (7 more files)
|-- certifi/
   |-- __init__.py
    |-- __main__.py
    |-- pycache /
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- core.cpython-312.pyc
    |-- cacert.pem
    |-- core.py
|-- chardet/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- big5freq.cpython-312.pyc
        |-- big5prober.cpython-312.pyc
        -- chardistribution.cpython-312.pyc
        -- charsetgroupprober.cpython-312.pyc
        |-- ... (39 more files)
    |-- big5freq.py
    |-- big5prober.py
    |-- chardistribution.py
    |-- charsetgroupprober.py
    |-- ... (42 more files)
    |-- cli/
        -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- chardetect.cpython-312.pyc
        |-- chardetect.py
    |-- metadata/
        |-- __init__.py
```

```
|-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- languages.cpython-312.pyc
        |-- languages.py
|-- colorama/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- ansi.cpython-312.pyc
        |-- ansitowin32.cpython-312.pyc
        |-- initialise.cpython-312.pyc
        |-- win32.cpython-312.pyc
        |-- ... (1 more files)
    |-- ansi.py
    |-- ansitowin32.py
    |-- initialise.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- ansi_test.cpython-312.pyc
            |-- ansitowin32_test.cpython-312.pyc
            |-- initialise_test.cpython-312.pyc
            |-- isatty_test.cpython-312.pyc
            |-- ... (2 more files)
        |-- ansi test.py
        |-- ansitowin32 test.py
        |-- initialise_test.py
        |-- isatty_test.py
        |-- ... (3 more files)
    |-- win32.py
    |-- ... (3 more files)
|-- distlib/
   |-- __init__.py
    -- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- compat.cpython-312.pyc
        |-- database.cpython-312.pyc
        |-- index.cpython-312.pyc
        |-- locators.cpython-312.pyc
        |-- ... (8 more files)
    |-- compat.py
    |-- database.py
    |-- index.py
    |-- locators.py
    |-- ... (15 more files)
|-- distro/
    |-- __init__.py
    |-- __main__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- distro.cpython-312.pyc
```

```
-- distro.py
|-- idna/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- codec.cpython-312.pyc
        |-- compat.cpython-312.pyc
        |-- core.cpython-312.pyc
        |-- idnadata.cpython-312.pyc
        |-- ... (3 more files)
    -- codec.py
    |-- compat.py
    -- core.py
    |-- idnadata.py
    |-- ... (4 more files)
|-- msgpack/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- exceptions.cpython-312.pyc
        -- ext.cpython-312.pyc
        |-- fallback.cpython-312.pyc
    |-- exceptions.py
    -- ext.py
    |-- fallback.py
|-- packaging/
    |-- __about__.py
    |-- __init__.py
    |-- __pycache__/
        |-- __about__.cpython-312.pyc
        |-- __init__.cpython-312.pyc
        |-- _manylinux.cpython-312.pyc
        |-- _musllinux.cpython-312.pyc
        |-- _structures.cpython-312.pyc
        |-- ... (6 more files)
    |-- _manylinux.py
    |-- _musllinux.py
    |-- _structures.py
    |-- ... (7 more files)
-- pkg_resources/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
|-- platformdirs/
   |-- __init__.py
    |-- __main__.py
    |-- pycache /
        |-- __init__.cpython-312.pyc
        -- __main__.cpython-312.pyc
        |-- android.cpython-312.pyc
        |-- api.cpython-312.pyc
        -- macos.cpython-312.pyc
        |-- ... (3 more files)
```

```
|-- android.py
    |-- api.py
    |-- macos.py
    |-- ... (4 more files)
|-- pygments/
    |-- __init__.py
    |-- __main__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- cmdline.cpython-312.pyc
        |-- console.cpython-312.pyc
        |-- filter.cpython-312.pyc
        |-- ... (11 more files)
    |-- cmdline.py
    |-- console.py
    |-- filter.py
    |-- filters/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
    |-- ... (16 more files)
    |-- formatters/
        |-- __init__.py
        -- __pycache__/
            |-- init .cpython-312.pyc
            |-- _mapping.cpython-312.pyc
            |-- bbcode.cpython-312.pyc
            |-- groff.cpython-312.pyc
            -- html.cpython-312.pyc
            |-- ... (9 more files)
        |-- _mapping.py
        |-- bbcode.py
        |-- groff.py
        -- html.py
        |-- ... (10 more files)
    |-- lexers/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _mapping.cpython-312.pyc
            -- python.cpython-312.pyc
        |-- _mapping.py
        |-- python.py
    |-- styles/
        |-- __init__.py
        |-- pycache /
            |-- __init__.cpython-312.pyc
-- pyparsing/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- actions.cpython-312.pyc
```

```
|-- common.cpython-312.pyc
        |-- core.cpython-312.pyc
        |-- exceptions.cpython-312.pyc
        |-- ... (5 more files)
    |-- actions.py
    |-- common.py
    -- core.py
    |-- diagram/
        |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
    |-- exceptions.py
    |-- ... (7 more files)
|-- pyproject_hooks/
   |-- __init__.py
    |-- ___pycache___/
        |-- __init___.cpython-312.pyc
        |-- _compat.cpython-312.pyc
        |-- _impl.cpython-312.pyc
    -- _compat.py
    |-- _impl.py
    -- _in_process/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
           |-- in process.cpython-312.pyc
        |-- _in_process.py
-- requests/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- __version__.cpython-312.pyc
        |-- _internal_utils.cpython-312.pyc
        |-- adapters.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- ... (13 more files)
    -- __version__.py
    |-- _internal_utils.py
    |-- adapters.py
    |-- api.py
    |-- ... (14 more files)
|-- resolvelib/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- providers.cpython-312.pyc
        |-- reporters.cpython-312.pyc
        |-- resolvers.cpython-312.pyc
        |-- structs.cpython-312.pyc
    |-- compat/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
```

```
|-- collections_abc.cpython-312.pyc
        |-- collections_abc.py
    |-- providers.py
    |-- reporters.py
    |-- resolvers.py
    |-- structs.py
|-- rich/
    |-- __init__.py
    |-- __main__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- _cell_widths.cpython-312.pyc
        |-- _emoji_codes.cpython-312.pyc
        -- _emoji_replace.cpython-312.pyc
        |-- ... (72 more files)
    |-- _cell_widths.py
    |-- _emoji_codes.py
    |-- _emoji_replace.py
    |-- ... (73 more files)
-- six.py
|-- tenacity/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- asyncio.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        -- after.cpython-312.pyc
        |-- before.cpython-312.pyc
        |-- ... (6 more files)
    |-- _asyncio.py
    |-- _utils.py
    |-- after.py
    |-- before.py
    |-- ... (7 more files)
|-- tomli/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _parser.cpython-312.pyc
        -- _re.cpython-312.pyc
        -- _types.cpython-312.pyc
    |-- _parser.py
    |-- _re.py
    -- _types.py
|-- typing_extensions.py
|-- urllib3/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _collections.cpython-312.pyc
        |-- _version.cpython-312.pyc
        |-- connection.cpython-312.pyc
```

```
|-- connectionpool.cpython-312.pyc
   |-- ... (6 more files)
|-- _collections.py
|-- _version.py
|-- connection.py
|-- connectionpool.py
|-- contrib/
   |-- __init__.py
   |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- _appengine_environ.cpython-312.pyc
        |-- appengine.cpython-312.pyc
        |-- ntlmpool.cpython-312.pyc
        |-- pyopenssl.cpython-312.pyc
       |-- ... (2 more files)
   |-- _appengine_environ.py
   |-- _securetransport/
       |-- __init__.py
       |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- bindings.cpython-312.pyc
            |-- low_level.cpython-312.pyc
        |-- bindings.py
        |-- low_level.py
    |-- appengine.py
   |-- ntlmpool.py
   |-- pyopenssl.py
   |-- ... (4 more files)
|-- ... (10 more files)
|-- packages/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
       |-- six.cpython-312.pyc
    -- backports/
       |-- __init__.py
       |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- makefile.cpython-312.pyc
            |-- weakref_finalize.cpython-312.pyc
        |-- makefile.py
       |-- weakref_finalize.py
   |-- six.py
|-- util/
   |-- __init__.py
   |-- ___pycache___/
       |-- init .cpython-312.pyc
        |-- connection.cpython-312.pyc
       -- proxy.cpython-312.pyc
        |-- queue.cpython-312.pyc
        |-- request.cpython-312.pyc
        |-- ... (8 more files)
    |-- connection.py
```

```
-- proxy.py
                |-- queue.py
                -- request.py
                |-- ... (9 more files)
        -- vendor.txt
        |-- webencodings/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- labels.cpython-312.pyc
                |-- mklabels.cpython-312.pyc
                |-- tests.cpython-312.pyc
                |-- x_user_defined.cpython-312.pyc
            |-- labels.py
            |-- mklabels.py
            -- tests.py
            |-- x_user_defined.py
    -- py.typed
|-- pip-23.2.1.dist-info/
    |-- AUTHORS.txt
    -- INSTALLER
    |-- LICENSE.txt
    -- METADATA
    -- RECORD
    |-- ... (4 more files)
|-- pkg resources/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
    |-- api_tests.txt
    |-- py.typed
    -- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_find_distributions.cpython-312.pyc
            |-- test_integration_zope_interface.cpython-312.pyc
            |-- test_markers.cpython-312.pyc
            -- test_pkg_resources.cpython-312.pyc
            |-- ... (2 more files)
        |-- data/
            |-- my-test-package-source/
                |-- __pycache__/
                    |-- setup.cpython-312.pyc
                |-- setup.cfg
                |-- setup.py
            |-- my-test-package-zip/
                |-- my-test-package.zip
            -- my-test-package_unpacked-egg/
                -- my_test_package-1.0-py3.7.egg/
                    -- EGG-INFO/
                        -- PKG-INFO
                        |-- SOURCES.txt
```

```
|-- dependency_links.txt
                        |-- top_level.txt
                        |-- zip-safe
            |-- my-test-package_zipped-egg/
                |-- my_test_package-1.0-py3.7.egg
        |-- test find distributions.py
        |-- test_integration_zope_interface.py
        |-- test_markers.py
        |-- test_pkg_resources.py
        |-- ... (4 more files)
|-- psutil/
   -- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _common.cpython-312.pyc
        |-- _psaix.cpython-312.pyc
        |-- _psbsd.cpython-312.pyc
        |-- _pslinux.cpython-312.pyc
        |-- ... (4 more files)
    |-- _common.py
    -- _psaix.py
    -- _psbsd.py
    |-- _pslinux.py
    |-- ... (7 more files)
    |-- tests/
       |-- __init__.py
        |-- __main__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- __main__.cpython-312.pyc
            |-- test_aix.cpython-312.pyc
            -- test_bsd.cpython-312.pyc
            |-- test_connections.cpython-312.pyc
           |-- ... (14 more files)
        -- test_aix.py
        -- test_bsd.py
        |-- test_connections.py
        |-- ... (15 more files)
|-- psutil-7.0.0.dist-info/
    |-- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- ... (1 more files)
|-- py_cpuinfo-9.0.0.dist-info/
   -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- ... (2 more files)
-- pyparsing/
```

```
-- __init__.py
    |-- ___pycache___/
        |-- __init__.cpython-312.pyc
        |-- actions.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- core.cpython-312.pyc
        |-- exceptions.cpython-312.pyc
        |-- ... (5 more files)
    |-- actions.py
    |-- common.py
    -- core.py
    |-- diagram/
        |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
    |-- exceptions.py
    |-- ... (9 more files)
    |-- tools/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- cvt_pyparsing_pep8_names.cpython-312.pyc
        |-- cvt_pyparsing_pep8_names.py
|-- pyparsing-3.2.3.dist-info/
    -- INSTALLER
    |-- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
|-- python_dateutil-2.9.0.post0.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- ... (2 more files)
|-- python_dotenv-1.1.0.dist-info/
    -- INSTALLER
    -- METADATA
    |-- RECORD
    -- WHEEL
    -- entry_points.txt
    |-- licenses/
        |-- LICENSE
    |-- ... (2 more files)
|-- pytz/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- exceptions.cpython-312.pyc
        -- lazy.cpython-312.pyc
        -- reference.cpython-312.pyc
        |-- tzfile.cpython-312.pyc
```

```
|-- ... (1 more files)
|-- exceptions.py
-- lazy.py
|-- reference.py
|-- tzfile.py
|-- ... (3 more files)
|-- zoneinfo/
    |-- Africa/
        |-- Abidjan
        |-- Accra
        |-- Addis_Ababa
        |-- Algiers
        |-- Asmara
        |-- ... (49 more files)
    |-- America/
        |-- Adak
        -- Anchorage
        -- Anguilla
        |-- Antigua
        |-- Araguaina
        -- Argentina/
            |-- Buenos_Aires
            |-- Catamarca
            |-- ComodRivadavia
            -- Cordoba
            |-- Jujuy
            |-- ... (8 more files)
        |-- ... (142 more files)
        |-- Indiana/
            |-- Indianapolis
            -- Knox
            |-- Marengo
            |-- Petersburg
            |-- Tell_City
            |-- ... (3 more files)
        -- Kentucky/
            |-- Louisville
            |-- Monticello
        |-- North_Dakota/
            |-- Beulah
            |-- Center
            |-- New_Salem
    |-- Antarctica/
        |-- Casey
        |-- Davis
        |-- DumontDUrville
        |-- Macquarie
        -- Mawson
        |-- ... (7 more files)
    |-- Arctic/
        |-- Longyearbyen
    |-- Asia/
        -- Aden
```

```
|-- Almaty
    -- Amman
    -- Anadyr
    |-- Aqtau
    |-- ... (94 more files)
|-- Atlantic/
   -- Azores
    |-- Bermuda
    |-- Canary
    -- Cape_Verde
    -- Faeroe
    |-- ... (7 more files)
-- Australia/
    -- ACT
   |-- Adelaide
    -- Brisbane
    |-- Broken_Hill
    -- Canberra
   |-- ... (18 more files)
-- Brazil/
   -- Acre
   |-- DeNoronha
   |-- East
   |-- West
-- CET
-- CST6CDT
-- Canada/
   -- Atlantic
   |-- Central
   -- Eastern
    |-- Mountain
    |-- Newfoundland
    |-- ... (3 more files)
|-- Chile/
    |-- Continental
   |-- EasterIsland
-- Cuba
-- EET
-- EST
|-- ... (62 more files)
|-- Etc/
   -- GMT
    |-- GMT+0
    |-- GMT+1
    |-- GMT+10
    |-- GMT+11
    |-- ... (30 more files)
|-- Europe/
   -- Amsterdam
    |-- Andorra
    -- Astrakhan
    -- Athens
    |-- Belfast
```

```
|-- ... (59 more files)
        |-- Indian/
            |-- Antananarivo
            |-- Chagos
            -- Christmas
            -- Cocos
            -- Comoro
            |-- ... (6 more files)
        -- Mexico/
            |-- BajaNorte
            |-- BajaSur
            |-- General
        |-- Pacific/
            |-- Apia
            |-- Auckland
            |-- Bougainville
            |-- Chatham
            |-- Chuuk
            |-- ... (39 more files)
        |-- US/
            |-- Alaska
            |-- Aleutian
            |-- Arizona
            |-- Central
            |-- East-Indiana
            |-- ... (7 more files)
|-- pytz-2025.2.dist-info/
   -- INSTALLER
    |-- LICENSE.txt
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- ... (2 more files)
-- requests/
    |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        -- __version__.cpython-312.pyc
        |-- _internal_utils.cpython-312.pyc
        |-- adapters.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- ... (13 more files)
    -- __version__.py
    |-- _internal_utils.py
    |-- adapters.py
    |-- api.py
    |-- ... (14 more files)
-- requests-2.32.3.dist-info/
    -- INSTALLER
    |-- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
```

```
|-- ... (1 more files)
|-- requests_toolbelt/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- compat.cpython-312.pyc
        |-- exceptions.cpython-312.pyc
        |-- sessions.cpython-312.pyc
        |-- streaming_iterator.cpython-312.pyc
    |-- _compat.py
    |-- adapters/
       -- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- appengine.cpython-312.pyc
            |-- fingerprint.cpython-312.pyc
            |-- host_header_ssl.cpython-312.pyc
            |-- socket_options.cpython-312.pyc
            |-- ... (3 more files)
        |-- appengine.py
        |-- fingerprint.py
        |-- host_header_ssl.py
        |-- socket_options.py
        |-- ... (4 more files)
    |-- auth/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _digest_auth_compat.cpython-312.pyc
            |-- guess.cpython-312.pyc
            |-- handler.cpython-312.pyc
            |-- http_proxy_digest.cpython-312.pyc
        |-- _digest_auth_compat.py
       |-- guess.py
        |-- handler.py
        |-- http_proxy_digest.py
    |-- cookies/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- forgetful.cpython-312.pyc
        |-- forgetful.py
    |-- downloadutils/
       -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- stream.cpython-312.pyc
            |-- tee.cpython-312.pyc
        |-- stream.py
       |-- tee.py
    |-- exceptions.py
    |-- multipart/
       |-- __init__.py
```

```
-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- decoder.cpython-312.pyc
            |-- encoder.cpython-312.pyc
        -- decoder.py
        -- encoder.py
    |-- sessions.py
    |-- streaming_iterator.py
    |-- threaded/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- pool.cpython-312.pyc
            |-- thread.cpython-312.pyc
        |-- pool.py
        |-- thread.py
    |-- utils/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- deprecated.cpython-312.pyc
            |-- dump.cpython-312.pyc
            |-- formdata.cpython-312.pyc
            |-- user_agent.cpython-312.pyc
        -- deprecated.py
        |-- dump.py
        |-- formdata.py
        |-- user_agent.py
|-- requests_toolbelt-1.0.0.dist-info/
    |-- AUTHORS.rst
    |-- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    |-- ... (2 more files)
|-- roboflow/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- config.cpython-312.pyc
        |-- deployment.cpython-312.pyc
        -- roboflowpy.cpython-312.pyc
    -- adapters/
        -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- deploymentapi.cpython-312.pyc
            |-- rfapi.cpython-312.pyc
        |-- deploymentapi.py
        |-- rfapi.py
    |-- config.py
    -- core/
       |-- __init__.py
```

```
|-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- dataset.cpython-312.pyc
            |-- model.cpython-312.pyc
            |-- project.cpython-312.pyc
            |-- version.cpython-312.pyc
            |-- ... (1 more files)
        -- dataset.py
        |-- model.py
        |-- project.py
        -- version.py
        |-- ... (2 more files)
    |-- deployment.py
    |-- models/
        -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- classification.cpython-312.pyc
            |-- clip.cpython-312.pyc
            |-- gaze.cpython-312.pyc
            |-- inference.cpython-312.pyc
            |-- ... (5 more files)
        |-- classification.py
        -- clip.py
        -- gaze.py
        |-- inference.py
        |-- ... (6 more files)
    |-- roboflowpy.py
    |-- util/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- active_learning_utils.cpython-312.pyc
            |-- annotations.cpython-312.pyc
            |-- clip_compare_utils.cpython-312.pyc
            |-- folderparser.cpython-312.pyc
            |-- ... (6 more files)
        |-- active_learning_utils.py
        |-- annotations.py
        |-- clip_compare_utils.py
        |-- folderparser.py
        |-- ... (7 more files)
|-- roboflow-1.1.65.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- REQUESTED
    |-- ... (3 more files)
|-- scipy/
    -- config_.py
    |-- __init__.py
    |-- __pycache__/
```

```
-- __config__.cpython-312.pyc
   |-- __init___.cpython-312.pyc
    |-- _distributor_init.cpython-312.pyc
    |-- conftest.cpython-312.pyc
   |-- version.cpython-312.pyc
|-- distributor init.py
|-- _lib/
   |-- __init__.py
   |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- _array_api.cpython-312.pyc
        -- _array_api_no_0d.cpython-312.pyc
        |-- _bunch.cpython-312.pyc
        |-- _ccallback.cpython-312.pyc
        |-- ... (14 more files)
   |-- _array_api.py
   |-- _array_api_no_0d.py
   -- _bunch.py
   |-- _ccallback.py
    |-- ... (32 more files)
   |-- _uarray/
        |-- LICENSE
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- backend.cpython-312.pyc
        |-- _backend.py
        |-- _uarray.cp312-win_amd64.dll.a
        |-- _uarray.cp312-win_amd64.pyd
    |-- array_api_compat/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _internal.cpython-312.pyc
        |-- _internal.py
        |-- common/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- _aliases.cpython-312.pyc
                |-- _fft.cpython-312.pyc
                |-- _helpers.cpython-312.pyc
                |-- _linalg.cpython-312.pyc
                |-- ... (1 more files)
            |-- _aliases.py
            |-- _fft.py
            |-- helpers.py
            |-- _linalg.py
            |-- ... (2 more files)
        |-- cupy/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
```

```
|-- _aliases.cpython-312.pyc
            |-- _info.cpython-312.pyc
            |-- _typing.cpython-312.pyc
            |-- fft.cpython-312.pyc
            |-- ... (1 more files)
        |-- _aliases.py
        |-- _info.py
        |-- _typing.py
        |-- fft.py
        |-- ... (2 more files)
    |-- dask/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- array/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- _aliases.cpython-312.pyc
                -- _info.cpython-312.pyc
                |-- fft.cpython-312.pyc
                |-- linalg.cpython-312.pyc
            |-- _aliases.py
            |-- _info.py
            |-- fft.py
            |-- linalq.py
    |-- numpy/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _aliases.cpython-312.pyc
            |-- _info.cpython-312.pyc
            |-- _typing.cpython-312.pyc
            |-- fft.cpython-312.pyc
            |-- ... (1 more files)
        |-- _aliases.py
        |-- _info.py
        -- _typing.py
        |-- fft.py
        |-- ... (2 more files)
    |-- torch/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- _aliases.cpython-312.pyc
            |-- _info.cpython-312.pyc
            |-- fft.cpython-312.pyc
            |-- linalg.cpython-312.pyc
        |-- _aliases.py
        |-- _info.py
        |-- fft.py
        -- linalg.py
|-- array_api_extra/
```

```
|-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _funcs.cpython-312.pyc
        |-- _typing.cpython-312.pyc
    |-- _funcs.py
   |-- _typing.py
|-- cobyqa/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- framework.cpython-312.pyc
        |-- main.cpython-312.pyc
        |-- models.cpython-312.pyc
        -- problem.cpython-312.pyc
        |-- ... (1 more files)
    |-- framework.py
    |-- main.py
    |-- models.py
    |-- problem.py
    |-- ... (4 more files)
    -- subsolvers/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- geometry.cpython-312.pyc
            |-- optim.cpython-312.pyc
        |-- geometry.py
        |-- optim.py
    |-- utils/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- exceptions.cpython-312.pyc
            |-- math.cpython-312.pyc
            |-- versions.cpython-312.pyc
        |-- exceptions.py
        |-- math.py
        |-- versions.py
|-- tests/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- test__gcutils.cpython-312.pyc
        -- test__pep440.cpython-312.pyc
        |-- test__testutils.cpython-312.pyc
        |-- test threadsafety.cpython-312.pyc
        |-- ... (12 more files)
    |-- test__gcutils.py
    |-- test__pep440.py
    |-- test__testutils.py
    |-- test__threadsafety.py
    |-- ... (13 more files)
```

```
|-- cluster/
   |-- __init__.py
   |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- hierarchy.cpython-312.pyc
        |-- vq.cpython-312.pyc
    |-- _hierarchy.cp312-win_amd64.dll.a
    |-- _hierarchy.cp312-win_amd64.pyd
   |-- _optimal_leaf_ordering.cp312-win_amd64.dll.a
    |-- _optimal_leaf_ordering.cp312-win_amd64.pyd
   |-- ... (6 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
            |-- hierarchy_test_data.cpython-312.pyc
            |-- test_disjoint_set.cpython-312.pyc
            |-- test_hierarchy.cpython-312.pyc
            |-- test_vq.cpython-312.pyc
        |-- hierarchy_test_data.py
        |-- test_disjoint_set.py
        |-- test_hierarchy.py
        -- test_vq.py
|-- conftest.py
-- constants/
   |-- __init__.py
    -- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _codata.cpython-312.pyc
        |-- _constants.cpython-312.pyc
        -- codata.cpython-312.pyc
        |-- constants.cpython-312.pyc
    -- _codata.py
   |-- _constants.py
    -- codata.py
   |-- constants.py
   |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_codata.cpython-312.pyc
            -- test_constants.cpython-312.pyc
        |-- test_codata.py
        |-- test_constants.py
-- datasets/
   |-- __init__.py
   |-- __pycache__/
        -- __init__.cpython-312.pyc
       |-- _download_all.cpython-312.pyc
        |-- _fetchers.cpython-312.pyc
        |-- _registry.cpython-312.pyc
        |-- _utils.cpython-312.pyc
   |-- _download_all.py
```

```
|-- _fetchers.py
    |-- _registry.py
    |-- _utils.py
    |-- tests/
        |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_data.cpython-312.pyc
        |-- test_data.py
|-- differentiate/
   |-- __init__.py
    |-- __pycache__/
        |-- init .cpython-312.pyc
        |-- _differentiate.cpython-312.pyc
    |-- _differentiate.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_differentiate.cpython-312.pyc
        |-- test_differentiate.py
|-- fft/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- backend.cpython-312.pyc
        |-- _basic.cpython-312.pyc
        |-- _basic_backend.cpython-312.pyc
        -- _debug_backends.cpython-312.pyc
        |-- ... (5 more files)
    -- _backend.py
    |-- _basic.py
    |-- _basic_backend.py
    |-- _debug_backends.py
    |-- ... (8 more files)
    |-- pocketfft/
        |-- LICENSE.md
        |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- basic.cpython-312.pyc
            -- helper.cpython-312.pyc
            |-- realtransforms.cpython-312.pyc
        |-- basic.py
        -- helper.py
        |-- pypocketfft.cp312-win_amd64.dll.a
        |-- ... (4 more files)
        |-- tests/
            |-- __init__.py
            -- __pycache__/
                |-- __init__.cpython-312.pyc
                -- test_basic.cpython-312.pyc
                |-- test_real_transforms.cpython-312.pyc
```

```
-- test_basic.py
            |-- test_real_transforms.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- mock_backend.cpython-312.pyc
            |-- test_backend.cpython-312.pyc
            |-- test_basic.cpython-312.pyc
            |-- test_fftlog.cpython-312.pyc
            |-- ... (3 more files)
        |-- mock_backend.py
        |-- test backend.py
        |-- test_basic.py
        |-- test_fftlog.py
        |-- ... (4 more files)
|-- fftpack/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _basic.cpython-312.pyc
        |-- _helper.cpython-312.pyc
        |-- _pseudo_diffs.cpython-312.pyc
        |-- _realtransforms.cpython-312.pyc
        |-- ... (4 more files)
    -- basic.py
    |-- _helper.py
    -- _pseudo_diffs.py
    |-- _realtransforms.py
    |-- ... (8 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_basic.cpython-312.pyc
            |-- test_helper.cpython-312.pyc
            |-- test_import.cpython-312.pyc
            |-- test_pseudo_diffs.cpython-312.pyc
            |-- ... (1 more files)
        |-- fftw_double_ref.npz
        |-- fftw_longdouble_ref.npz
        |-- fftw_single_ref.npz
        -- test.npz
        |-- ... (6 more files)
|-- integrate/
   |-- __init__.py
    |-- pycache /
        -- __init__.cpython-312.pyc
        -- _bvp.cpython-312.pyc
        |-- _cubature.cpython-312.pyc
        |-- _lebedev.cpython-312.pyc
        -- _ode.cpython-312.pyc
        |-- ... (10 more files)
```

```
-- _bvp.py
|-- _cubature.py
|-- _dop.cp312-win_amd64.dll.a
|-- _dop.cp312-win_amd64.pyd
|-- _ivp/
   -- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- base.cpython-312.pyc
        |-- bdf.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- dop853_coefficients.cpython-312.pyc
        |-- ... (4 more files)
    |-- base.py
    |-- bdf.py
    |-- common.py
    |-- dop853_coefficients.py
    |-- ... (6 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_ivp.cpython-312.pyc
            -- test_rk.cpython-312.pyc
        -- test_ivp.py
        |-- test rk.py
|-- ... (28 more files)
-- _rules/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- _base.cpython-312.pyc
        |-- _gauss_kronrod.cpython-312.pyc
        |-- _gauss_legendre.cpython-312.pyc
        |-- _genz_malik.cpython-312.pyc
    -- base.py
    |-- _gauss_kronrod.py
    |-- _gauss_legendre.py
    |-- _genz_malik.py
|-- tests/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- test__quad_vec.cpython-312.pyc
        |-- test_banded_ode_solvers.cpython-312.pyc
        |-- test_bvp.cpython-312.pyc
        |-- test cubature.cpython-312.pyc
        |-- ... (5 more files)
    -- test__quad_vec.py
    |-- test_banded_ode_solvers.py
    |-- test_bvp.py
    |-- test_cubature.py
    |-- ... (6 more files)
```

```
|-- interpolate/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _bary_rational.cpython-312.pyc
        |-- bsplines.cpython-312.pyc
        |-- _cubic.cpython-312.pyc
        |-- _fitpack2.cpython-312.pyc
        |-- ... (19 more files)
    |-- _bary_rational.py
   |-- _bspl.cp312-win_amd64.dll.a
    |-- _bspl.cp312-win_amd64.pyd
    |-- _bsplines.py
    |-- ... (37 more files)
   |-- tests/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- test_bary_rational.cpython-312.pyc
            |-- test_bsplines.cpython-312.pyc
            -- test_fitpack.cpython-312.pyc
            -- test_fitpack2.cpython-312.pyc
            |-- ... (9 more files)
        -- data/
            |-- bug-1310.npz
            |-- estimate gradients hang.npy
            |-- qcvspl.npz
        |-- test_bary_rational.py
        |-- test_bsplines.py
        |-- test_fitpack.py
        |-- test_fitpack2.py
        |-- ... (11 more files)
|-- io/
   -- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _fortran.cpython-312.pyc
        |-- _idl.cpython-312.pyc
        |-- _mmio.cpython-312.pyc
        |-- _netcdf.cpython-312.pyc
        |-- ... (5 more files)
   |-- _fast_matrix_market/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
        |-- _fmm_core.cp312-win_amd64.dll.a
        |-- fmm core.cp312-win amd64.pyd
    |-- _fortran.py
    |-- _harwell_boeing/
       |-- __init__.py
       |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _fortran_format_parser.cpython-312.pyc
```

```
|-- hb.cpython-312.pyc
    |-- _fortran_format_parser.py
    -- hb.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_fortran_format.cpython-312.pyc
            -- test_hb.cpython-312.pyc
        |-- test_fortran_format.py
        -- test_hb.py
|-- _idl.py
|-- mmio.py
-- _netcdf.py
|-- ... (13 more files)
|-- arff/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _arffread.cpython-312.pyc
        |-- arffread.cpython-312.pyc
    |-- _arffread.py
    |-- arffread.py
    |-- tests/
        |-- __init__.py
        |-- pycache /
            -- __init__.cpython-312.pyc
            |-- test_arffread.cpython-312.pyc
        |-- data/
            |-- iris.arff
            |-- missing.arff
            |-- nodata.arff
            |-- quoted_nominal.arff
            |-- quoted_nominal_spaces.arff
            |-- ... (11 more files)
        |-- test_arffread.py
|-- matlab/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _byteordercodes.cpython-312.pyc
        |-- _mio.cpython-312.pyc
        |-- _mio4.cpython-312.pyc
        |-- _mio5.cpython-312.pyc
        |-- ... (11 more files)
    |-- _byteordercodes.py
    -- mio.py
    |-- _mio4.py
    |-- _mio5.py
    |-- ... (19 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
```

```
-- test_byteordercodes.cpython-312.pyc
                |-- test_mio.cpython-312.pyc
                |-- test_mio5_utils.cpython-312.pyc
                |-- test_mio_funcs.cpython-312.pyc
                |-- ... (4 more files)
            |-- data/
                |-- bad_miuint32.mat
                |-- bad_miutf8_array_name.mat
                |-- big_endian.mat
                |-- broken_utf8.mat
                |-- corrupted_zlib_checksum.mat
                |-- ... (106 more files)
            |-- test_byteordercodes.py
            -- test_mio.py
            |-- test_mio5_utils.py
            |-- test_mio_funcs.py
            |-- ... (6 more files)
    |-- tests/
       -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_fortran.cpython-312.pyc
            -- test_idl.cpython-312.pyc
            |-- test_mmio.cpython-312.pyc
            |-- test netcdf.cpython-312.pyc
            |-- ... (2 more files)
        -- data/
            |-- Transparent Busy.ani
            |-- array_float32_1d.sav
            |-- array_float32_2d.sav
            |-- array_float32_3d.sav
            |-- array_float32_4d.sav
            |-- ... (82 more files)
        |-- test_fortran.py
        |-- test idl.py
        |-- test_mmio.py
        |-- test_netcdf.py
        |-- ... (4 more files)
|-- linalg/
   -- __init__.pxd
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _basic.cpython-312.pyc
        |-- _decomp.cpython-312.pyc
        |-- _decomp_cholesky.cpython-312.pyc
        -- _decomp_cossin.cpython-312.pyc
        |-- ... (30 more files)
    -- _basic.py
    |-- _blas_subroutines.h
    |-- _cythonized_array_utils.cp312-win_amd64.dll.a
    |-- ... (67 more files)
```

-- \_\_init\_\_.cpython-312.pyc

```
|-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_basic.cpython-312.pyc
            |-- test blas.cpython-312.pyc
            |-- test_cython_blas.cpython-312.pyc
            |-- test_cython_lapack.cpython-312.pyc
            |-- ... (19 more files)
        |-- _cython_examples/
            |-- extending.pyx
            |-- meson.build
        |-- data/
            |-- carex_15_data.npz
            -- carex_18_data.npz
            |-- carex_19_data.npz
            |-- carex_20_data.npz
            -- carex_6_data.npz
            |-- ... (1 more files)
        |-- test_basic.py
        |-- test_blas.py
        |-- test_cython_blas.py
        |-- test_cython_lapack.py
        |-- ... (22 more files)
|-- misc/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- doccer.cpython-312.pyc
   -- common.py
   |-- doccer.py
|-- ndimage/
   -- __init__.py
    -- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _delegators.cpython-312.pyc
        |-- _filters.cpython-312.pyc
        |-- _fourier.cpython-312.pyc
        |-- _interpolation.cpython-312.pyc
        |-- ... (11 more files)
   |-- _ctest.cp312-win_amd64.dll.a
    |-- _ctest.cp312-win_amd64.pyd
    |-- _cytest.cp312-win_amd64.dll.a
    |-- _cytest.cp312-win_amd64.pyd
   |-- ... (23 more files)
   |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_c_api.cpython-312.pyc
            -- test_datatypes.cpython-312.pyc
            |-- test_filters.cpython-312.pyc
```

```
|-- test_fourier.cpython-312.pyc
            |-- ... (5 more files)
        |-- data/
            |-- label_inputs.txt
            |-- label_results.txt
            |-- label strels.txt
        |-- dots.png
        -- test_c_api.py
        |-- test_datatypes.py
        |-- test_filters.py
        |-- ... (8 more files)
|-- odr/
   |-- __init__.py
   -- __odrpack.cp312-win_amd64.dll.a
   -- __odrpack.cp312-win_amd64.pyd
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- _add_newdocs.cpython-312.pyc
        |-- _models.cpython-312.pyc
        |-- _odrpack.cpython-312.pyc
        |-- models.cpython-312.pyc
        |-- ... (1 more files)
   |-- _add_newdocs.py
    |-- _models.py
    |-- ... (5 more files)
   |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
           -- test_odr.cpython-312.pyc
        |-- test_odr.py
|-- optimize/
   |-- __init__.pxd
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _basinhopping.cpython-312.pyc
        |-- _bracket.cpython-312.pyc
        |-- _chandrupatla.cpython-312.pyc
        -- _cobyla_py.cpython-312.pyc
        |-- ... (53 more files)
    |-- _basinhopping.py
    |-- _bglu_dense.cp312-win_amd64.dll.a
    |-- _bglu_dense.cp312-win_amd64.pyd
    |-- ... (87 more files)
    |-- _highspy/
       |-- init .py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _highs_wrapper.cpython-312.pyc
        |-- _core.cp312-win_amd64.dll.a
        |-- _core.cp312-win_amd64.pyd
        |-- _highs_options.cp312-win_amd64.dll.a
```

```
|-- _highs_options.cp312-win_amd64.pyd
    |-- ... (2 more files)
|-- _lsq/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- bvls.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- dogbox.cpython-312.pyc
        |-- least_squares.cpython-312.pyc
        |-- ... (3 more files)
    |-- bvls.py
    |-- common.py
    |-- dogbox.py
    |-- givens_elimination.cp312-win_amd64.dll.a
   |-- ... (6 more files)
-- _shgo_lib/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _complex.cpython-312.pyc
       -- _vertex.cpython-312.pyc
    -- _complex.py
   |-- _vertex.py
|-- _trlib/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
    |-- _trlib.cp312-win_amd64.dll.a
   -- _trlib.cp312-win_amd64.pyd
|-- _trustregion_constr/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- canonical_constraint.cpython-312.pyc
        |-- equality_constrained_sqp.cpython-312.pyc
        |-- minimize_trustregion_constr.cpython-312.pyc
        |-- projections.cpython-312.pyc
        |-- ... (3 more files)
    |-- canonical_constraint.py
    |-- equality_constrained_sqp.py
    |-- minimize_trustregion_constr.py
    |-- projections.py
    |-- ... (5 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_canonical_constraint.cpython-312.pyc
            -- test_nested_minimize.cpython-312.pyc
            |-- test_projections.cpython-312.pyc
            -- test_qp_subproblem.cpython-312.pyc
            |-- ... (1 more files)
```

```
|-- test_canonical_constraint.py
            |-- test_nested_minimize.py
            |-- test_projections.py
            |-- test_qp_subproblem.py
            |-- ... (2 more files)
    |-- cython optimize/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
        |-- _zeros.cp312-win_amd64.dll.a
        -- _zeros.cp312-win_amd64.pyd
        -- _zeros.pxd
        |-- c zeros.pxd
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_basinhopping.cpython-312.pyc
            |-- test__differential_evolution.cpython-312.pyc
            -- test__dual_annealing.cpython-312.pyc
            -- test__linprog_clean_inputs.cpython-312.pyc
            |-- ... (39 more files)
        |-- _cython_examples/
            |-- extending.pyx
            |-- meson.build
        |-- test basinhopping.py
        |-- test differential evolution.py
        |-- test__dual_annealing.py
        |-- test__linprog_clean_inputs.py
        |-- ... (41 more files)
|-- signal/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _arraytools.cpython-312.pyc
        |-- czt.cpython-312.pyc
        |-- _filter_design.cpython-312.pyc
        |-- _fir_filter_design.cpython-312.pyc
        |-- ... (22 more files)
    |-- _arraytools.py
   -- _czt.py
   |-- _filter_design.py
    |-- _fir_filter_design.py
   |-- ... (38 more files)
   |-- tests/
        |-- __init__.py
        |-- pycache /
            |-- __init___.cpython-312.pyc
           |-- _scipy_spectral_test_shim.cpython-312.pyc
            |-- mpsig.cpython-312.pyc
            |-- test_array_tools.cpython-312.pyc
            |-- test_bsplines.cpython-312.pyc
            |-- ... (18 more files)
```

```
|-- _scipy_spectral_test_shim.py
        |-- mpsig.py
        |-- test_array_tools.py
        |-- test_bsplines.py
        |-- ... (19 more files)
    |-- windows/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- _windows.cpython-312.pyc
            |-- windows.cpython-312.pyc
        |-- _windows.py
        |-- windows.py
-- sparse/
   -- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _base.cpython-312.pyc
        |-- _bsr.cpython-312.pyc
        |-- _compressed.cpython-312.pyc
        -- _construct.cpython-312.pyc
        |-- ... (28 more files)
   -- _base.py
    -- _bsr.py
    |-- _compressed.py
    |-- construct.py
    |-- ... (36 more files)
   -- csgraph/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _laplacian.cpython-312.pyc
            |-- _validation.cpython-312.pyc
        |-- _flow.cp312-win_amd64.dll.a
        -- _flow.cp312-win_amd64.pyd
        |-- laplacian.py
        |-- _matching.cp312-win_amd64.dll.a
        |-- ... (14 more files)
        -- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- test_connected_components.cpython-312.pyc
                |-- test_conversions.cpython-312.pyc
                |-- test_flow.cpython-312.pyc
                -- test_graph_laplacian.cpython-312.pyc
                |-- ... (6 more files)
            |-- test_connected_components.py
            |-- test_conversions.py
            |-- test_flow.py
            |-- test_graph_laplacian.py
            |-- ... (7 more files)
   |-- linalg/
```

```
|-- __init__.py
|-- __pycache__/
    |-- __init___.cpython-312.pyc
    |-- _expm_multiply.cpython-312.pyc
    |-- _interface.cpython-312.pyc
    |-- matfuncs.cpython-312.pyc
    -- _norm.cpython-312.pyc
    |-- ... (8 more files)
|-- _dsolve/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- add newdocs.cpython-312.pyc
        |-- linsolve.cpython-312.pyc
    |-- _add_newdocs.py
    |-- _superlu.cp312-win_amd64.dll.a
    |-- _superlu.cp312-win_amd64.pyd
    |-- linsolve.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test linsolve.cpython-312.pyc
        |-- test_linsolve.py
|-- _eigen/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _svds.cpython-312.pyc
       -- _svds_doc.cpython-312.pyc
    -- _svds.py
    |-- _svds_doc.py
    |-- arpack/
       -- COPYING
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
           |-- arpack.cpython-312.pyc
        |-- _arpack.cp312-win_amd64.dll.a
        |-- _arpack.cp312-win_amd64.pyd
        |-- arpack.py
        |-- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_arpack.cpython-312.pyc
            |-- test arpack.py
    |-- lobpcq/
       |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- lobpcg.cpython-312.pyc
        -- lobpcg.py
```

```
|-- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_lobpcg.cpython-312.pyc
            |-- test lobpcq.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
           -- test_svds.cpython-312.pyc
        |-- test_svds.py
|-- expm multiply.py
|-- _interface.py
|-- _isolve/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _gcrotmk.cpython-312.pyc
        |-- iterative.cpython-312.pyc
        -- lgmres.cpython-312.pyc
        |-- lsmr.cpython-312.pyc
        |-- ... (4 more files)
    |-- _gcrotmk.py
    |-- iterative.py
    |-- lgmres.py
    |-- lsmr.py
    |-- ... (6 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_gcrotmk.cpython-312.pyc
            |-- test_iterative.cpython-312.pyc
            |-- test_lgmres.cpython-312.pyc
            |-- test_lsmr.cpython-312.pyc
            |-- ... (3 more files)
        |-- test_gcrotmk.py
        |-- test_iterative.py
        |-- test_lgmres.py
        |-- test_lsmr.py
        |-- ... (4 more files)
|-- _matfuncs.py
-- _norm.py
|-- ... (14 more files)
-- _propack/
    -- cpropack.cp312-win amd64.dll.a
    |-- _cpropack.cp312-win_amd64.pyd
    |-- _dpropack.cp312-win_amd64.dll.a
    |-- _dpropack.cp312-win_amd64.pyd
    |-- _spropack.cp312-win_amd64.dll.a
    |-- ... (3 more files)
|-- tests/
```

```
|-- __init__.py
            |-- __pycache__/
                |-- __init___.cpython-312.pyc
                |-- test_expm_multiply.cpython-312.pyc
                |-- test_interface.cpython-312.pyc
                |-- test matfuncs.cpython-312.pyc
                -- test_norm.cpython-312.pyc
                |-- ... (4 more files)
            -- propack_test_data.npz
            |-- test_expm_multiply.py
            |-- test_interface.py
            |-- test_matfuncs.py
            |-- ... (6 more files)
   |-- tests/
       -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_arithmetic1d.cpython-312.pyc
            |-- test_array_api.cpython-312.pyc
            |-- test_base.cpython-312.pyc
            |-- test_common1d.cpython-312.pyc
            |-- ... (12 more files)
        |-- data/
            -- csc_py2.npz
            -- csc_py3.npz
        |-- test arithmetic1d.py
        |-- test array api.py
        -- test_base.py
        |-- test_common1d.py
        |-- ... (14 more files)
|-- spatial/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _geometric_slerp.cpython-312.pyc
        |-- _kdtree.cpython-312.pyc
        |-- _plotutils.cpython-312.pyc
        |-- _procrustes.cpython-312.pyc
        |-- ... (5 more files)
    |-- _ckdtree.cp312-win_amd64.dll.a
    |-- _ckdtree.cp312-win_amd64.pyd
   |-- _distance_pybind.cp312-win_amd64.dll.a
    |-- _distance_pybind.cp312-win_amd64.pyd
   |-- ... (24 more files)
    -- qhull_src/
        -- COPYING.txt
    -- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test__plotutils.cpython-312.pyc
            -- test__procrustes.cpython-312.pyc
            |-- test_distance.cpython-312.pyc
```

```
|-- ... (4 more files)
        |-- data/
            |-- cdist-X1.txt
            |-- cdist-X2.txt
            |-- degenerate pointset.npz
            |-- iris.txt
            |-- pdist-boolean-inp.txt
            |-- ... (26 more files)
        |-- test__plotutils.py
        |-- test__procrustes.py
        |-- test_distance.py
        |-- test hausdorff.py
        |-- ... (6 more files)
    |-- transform/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _rotation_groups.cpython-312.pyc
            |-- _rotation_spline.cpython-312.pyc
            |-- rotation.cpython-312.pyc
        -- _rotation.cp312-win_amd64.dll.a
        |-- _rotation.cp312-win_amd64.pyd
        |-- _rotation_groups.py
        |-- _rotation_spline.py
        |-- ... (3 more files)
        |-- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_rotation.cpython-312.pyc
                |-- test_rotation_groups.cpython-312.pyc
                |-- test_rotation_spline.cpython-312.pyc
            |-- test_rotation.py
            |-- test_rotation_groups.py
            |-- test rotation spline.py
|-- special/
   |-- __init__.pxd
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- _add_newdocs.cpython-312.pyc
        |-- _basic.cpython-312.pyc
        |-- _ellip_harm.cpython-312.pyc
        |-- _input_validation.cpython-312.pyc
        |-- ... (16 more files)
    -- add newdocs.py
    -- basic.py
    -- _comb.cp312-win_amd64.dll.a
    |-- ... (51 more files)
    |-- _precompute/
        |-- __init__.py
        |-- __pycache__/
```

-- test\_hausdorff.cpython-312.pyc

```
|-- __init__.cpython-312.pyc
            |-- cosine_cdf.cpython-312.pyc
            |-- expn_asy.cpython-312.pyc
            |-- gammainc_asy.cpython-312.pyc
            |-- gammainc_data.cpython-312.pyc
            |-- ... (9 more files)
        |-- cosine_cdf.py
        -- expn_asy.py
        |-- gammainc_asy.py
        |-- gammainc_data.py
        |-- ... (10 more files)
   |-- tests/
        |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
            |-- test_basic.cpython-312.pyc
            -- test_bdtr.cpython-312.pyc
            -- test_boost_ufuncs.cpython-312.pyc
            |-- test_boxcox.cpython-312.pyc
            |-- ... (53 more files)
        |-- _cython_examples/
            |-- extending.pyx
            |-- meson.build
        -- data/
            |-- __init__.py
            |-- pycache /
                |-- __init__.cpython-312.pyc
            -- boost.npz
            |-- gsl.npz
            |-- local.npz
        |-- test_basic.py
        -- test_bdtr.py
        |-- test_boost_ufuncs.py
        |-- test_boxcox.py
        |-- ... (56 more files)
   |-- xsf/
        |-- binom.h
        |-- cdflib.h
        -- cephes/
            |-- airy.h
            |-- besselpoly.h
            |-- beta.h
            |-- cbrt.h
            |-- chbevl.h
            |-- ... (35 more files)
        |-- config.h
        |-- digamma.h
        |-- error.h
        |-- ... (12 more files)
|-- stats/
   |-- __init__.py
   -- __pycache__/
       |-- __init__.cpython-312.pyc
```

```
-- _axis_nan_policy.cpython-312.pyc
    |-- _binned_statistic.cpython-312.pyc
    |-- _binomtest.cpython-312.pyc
    |-- _bws_test.cpython-312.pyc
    |-- ... (53 more files)
|-- ansari swilk statistics.cp312-win amd64.dll.a
|-- _ansari_swilk_statistics.cp312-win_amd64.pyd
-- _axis_nan_policy.py
|-- _biasedurn.cp312-win_amd64.dll.a
|-- ... (77 more files)
|-- _levy_stable/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
    |-- levyst.cp312-win_amd64.dll.a
   |-- levyst.cp312-win amd64.pyd
|-- _rcont/
   |-- __init__.py
   |-- __pycache__/
       -- __init__.cpython-312.pyc
    |-- rcont.cp312-win_amd64.dll.a
    -- rcont.cp312-win_amd64.pyd
|-- _unuran/
   |-- __init__.py
    |-- __pycache__/
       |-- init .cpython-312.pyc
    |-- unuran wrapper.cp312-win amd64.dll.a
    -- unuran_wrapper.cp312-win_amd64.pyd
    |-- unuran_wrapper.pyi
|-- tests/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- common_tests.cpython-312.pyc
        -- test_axis_nan_policy.cpython-312.pyc
        |-- test_binned_statistic.cpython-312.pyc
        -- test_censored_data.cpython-312.pyc
        |-- ... (31 more files)
    |-- common_tests.py
    |-- data/
        |-- __pycache__/
            -- _mvt.cpython-312.pyc
            |-- fisher_exact_results_from_r.cpython-312.pyc
        -- mvt.py
        |-- fisher_exact_results_from_r.py
        |-- jf_skew_t_gamlss_pdf_data.npy
        |-- levy stable/
            |-- stable-Z1-cdf-sample-data.npy
            |-- stable-Z1-pdf-sample-data.npy
            |-- stable-loc-scale-sample-data.npy
        |-- nist_anova/
            |-- AtmWtAg.dat
            |-- SiRstv.dat
```

```
|-- SmLs01.dat
                    |-- SmLs02.dat
                    |-- SmLs03.dat
                    |-- ... (6 more files)
                |-- nist_linregress/
                    |-- Norris.dat
                |-- rel_breitwigner_pdf_sample_data_ROOT.npy
                |-- studentized_range_mpmath_ref.json
            |-- test_axis_nan_policy.py
            |-- test_binned_statistic.py
            |-- test_censored_data.py
            |-- ... (33 more files)
    -- version.py
|-- scipy-1.15.3.dist-info/
    -- DELVEWHEEL
    |-- INSTALLER
    |-- LICENSE.txt
    -- METADATA
    -- RECORD
    |-- ... (1 more files)
|-- scipy.libs/
    |-- libscipy_openblas-f07f5a5d207a3a47104dca54d6d0c86a.dll
|-- setuptools/
    |-- __init__.py
    |-- __pycache__/
        |-- init .cpython-312.pyc
        |-- core metadata.cpython-312.pyc
        |-- _discovery.cpython-312.pyc
        -- _entry_points.cpython-312.pyc
        |-- _imp.cpython-312.pyc
        |-- ... (28 more files)
    |-- _core_metadata.py
    |-- _discovery.py
    |-- _distutils/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            -- _log.cpython-312.pyc
            |-- _macos_compat.cpython-312.pyc
            |-- _modified.cpython-312.pyc
            |-- _msvccompiler.cpython-312.pyc
            |-- ... (23 more files)
        |-- _log.py
        |-- _macos_compat.py
        |-- _modified.py
        |-- _msvccompiler.py
        |-- ... (28 more files)
        |-- command/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- _framework_compat.cpython-312.pyc
                |-- bdist.cpython-312.pyc
```

```
|-- bdist_dumb.cpython-312.pyc
        |-- bdist_rpm.cpython-312.pyc
        |-- ... (15 more files)
    |-- _framework_compat.py
    |-- bdist.py
    |-- bdist dumb.py
    |-- bdist_rpm.py
    |-- ... (16 more files)
|-- compat/
    |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        -- numpy.cpython-312.pyc
        |-- py39.cpython-312.pyc
    -- numpy.py
    |-- py39.py
|-- compilers/
   |-- C/
        |-- __pycache__/
            |-- base.cpython-312.pyc
            |-- cygwin.cpython-312.pyc
            -- errors.cpython-312.pyc
            |-- msvc.cpython-312.pyc
            |-- unix.cpython-312.pyc
            |-- ... (1 more files)
        |-- base.py
        |-- cygwin.py
        -- errors.py
        |-- msvc.py
        |-- tests/
            |-- __pycache__/
                -- test_base.cpython-312.pyc
                |-- test_cygwin.cpython-312.pyc
                |-- test_mingw.cpython-312.pyc
                |-- test_msvc.cpython-312.pyc
                |-- test_unix.cpython-312.pyc
            |-- test_base.py
            |-- test_cygwin.py
            |-- test_mingw.py
            |-- test_msvc.py
            |-- test_unix.py
        |-- unix.py
        |-- ... (3 more files)
|-- tests/
   |-- __init__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- support.cpython-312.pyc
        |-- test_archive_util.cpython-312.pyc
        |-- test_bdist.cpython-312.pyc
        |-- test_bdist_dumb.cpython-312.pyc
        |-- ... (31 more files)
    |-- compat/
```

```
|-- __init__.py
            |-- ___pycache___/
                |-- __init__.cpython-312.pyc
                -- py39.cpython-312.pyc
            |-- py39.py
        |-- support.py
        |-- test_archive_util.py
        |-- test_bdist.py
        |-- test_bdist_dumb.py
        |-- ... (33 more files)
-- _entry_points.py
|-- _imp.py
|-- ... (45 more files)
-- _vendor/
   |-- __pycache__/
       |-- typing_extensions.cpython-312.pyc
   |-- autocommand/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- autoasync.cpython-312.pyc
            |-- autocommand.cpython-312.pyc
            |-- automain.cpython-312.pyc
            |-- autoparse.cpython-312.pyc
            |-- ... (1 more files)
        |-- autoasync.py
        |-- autocommand.py
        |-- automain.py
        |-- autoparse.py
        |-- ... (2 more files)
   |-- autocommand-2.2.2.dist-info/
        -- INSTALLER
        |-- LICENSE
        -- METADATA
        -- RECORD
        |-- WHEEL
        |-- ... (1 more files)
   |-- backports/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- tarfile/
            |-- __init__.py
            |-- __main__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- main .cpython-312.pyc
            |-- compat/
                |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
                    -- py38.cpython-312.pyc
                |-- py38.py
```

```
|-- backports.tarfile-1.2.0.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- REQUESTED
    |-- ... (2 more files)
|-- importlib_metadata/
    |-- __init__.py
    |-- __pycache__/
       -- __init__.cpython-312.pyc
        |-- _adapters.cpython-312.pyc
        |-- _collections.cpython-312.pyc
        -- _compat.cpython-312.pyc
        |-- _functools.cpython-312.pyc
        |-- ... (4 more files)
    |-- _adapters.py
    |-- _collections.py
    -- _compat.py
    |-- _functools.py
    |-- ... (7 more files)
    -- compat/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- py311.cpython-312.pyc
            -- py39.cpython-312.pyc
        |-- py311.py
        |-- py39.py
|-- importlib_metadata-8.0.0.dist-info/
    -- INSTALLER
    |-- LICENSE
    -- METADATA
    |-- RECORD
    -- REQUESTED
    |-- ... (2 more files)
|-- inflect/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
    |-- compat/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
           |-- py38.cpython-312.pyc
        |-- py38.py
    -- py.typed
|-- inflect-7.3.1.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    |-- WHEEL
```

```
|-- ... (1 more files)
|-- jaraco/
    |-- ___pycache___/
       |-- context.cpython-312.pyc
    |-- collections/
        |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
        |-- py.typed
    |-- context.py
    |-- functools/
       |-- __init__.py
        |-- __init__.pyi
        -- __pycache__/
           -- __init__.cpython-312.pyc
        -- py.typed
    |-- text/
       |-- Lorem ipsum.txt
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- layouts.cpython-312.pyc
            |-- show-newlines.cpython-312.pyc
            |-- strip-prefix.cpython-312.pyc
            |-- to-dvorak.cpython-312.pyc
            |-- ... (1 more files)
        |-- layouts.py
        |-- show-newlines.py
        -- strip-prefix.py
        |-- ... (3 more files)
|-- jaraco.collections-5.1.0.dist-info/
    -- INSTALLER
    -- LICENSE
    |-- METADATA
    -- RECORD
    -- REQUESTED
    |-- ... (2 more files)
|-- jaraco.context-5.3.0.dist-info/
    -- INSTALLER
    |-- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- ... (1 more files)
|-- jaraco.functools-4.0.1.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    |-- WHEEL
    |-- ... (1 more files)
|-- jaraco.text-3.12.1.dist-info/
    |-- INSTALLER
```

```
-- LICENSE
    -- METADATA
    -- RECORD
    -- REQUESTED
    |-- ... (2 more files)
|-- more itertools/
   |-- __init__.py
    |-- __init__.pyi
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- more.cpython-312.pyc
        |-- recipes.cpython-312.pyc
    |-- more.py
    |-- more.pyi
    -- py.typed
    |-- ... (3 more files)
|-- more_itertools-10.3.0.dist-info/
    -- INSTALLER
    |-- LICENSE
    -- METADATA
    |-- RECORD
    -- REQUESTED
    |-- ... (1 more files)
|-- packaging/
    |-- __init__.py
    |-- pycache /
        |-- __init__.cpython-312.pyc
        |-- _elffile.cpython-312.pyc
        |-- _manylinux.cpython-312.pyc
        |-- _musllinux.cpython-312.pyc
        -- _parser.cpython-312.pyc
        |-- ... (9 more files)
    |-- _elffile.py
    |-- _manylinux.py
    |-- _musllinux.py
    -- _parser.py
    |-- ... (12 more files)
    -- licenses/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
           -- _spdx.cpython-312.pyc
        -- _spdx.py
|-- packaging-24.2.dist-info/
    -- INSTALLER
    -- LICENSE
    |-- LICENSE.APACHE
    |-- LICENSE.BSD
    -- METADATA
    |-- ... (3 more files)
|-- platformdirs/
   |-- __init__.py
    |-- main .py
```

```
|-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- android.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- macos.cpython-312.pyc
        |-- ... (3 more files)
    |-- android.py
    |-- api.py
    |-- macos.py
    |-- ... (5 more files)
|-- platformdirs-4.2.2.dist-info/
    |-- INSTALLER
    -- METADATA
    -- RECORD
    -- REQUESTED
    |-- WHEEL
    |-- licenses/
       -- LICENSE
|-- tomli/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _parser.cpython-312.pyc
        -- _re.cpython-312.pyc
        -- types.cpython-312.pyc
    |-- _parser.py
    |-- _re.py
    -- _types.py
    |-- py.typed
|-- tomli-2.0.1.dist-info/
    -- INSTALLER
    -- LICENSE
    |-- METADATA
    -- RECORD
    |-- REQUESTED
    |-- ... (1 more files)
|-- typeguard/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- _checkers.cpython-312.pyc
        |-- _config.cpython-312.pyc
        |-- _decorators.cpython-312.pyc
        |-- _exceptions.cpython-312.pyc
        |-- ... (8 more files)
    |-- checkers.py
    -- _config.py
    |-- _decorators.py
    |-- _exceptions.py
    |-- ... (10 more files)
|-- typeguard-4.3.0.dist-info/
    |-- INSTALLER
```

```
-- LICENSE
    -- METADATA
    -- RECORD
   |-- WHEEL
   |-- ... (2 more files)
|-- typing extensions-4.12.2.dist-info/
   -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
   |-- WHEEL
|-- typing_extensions.py
|-- wheel/
   |-- __init__.py
   -- __main__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- __main__.cpython-312.pyc
        |-- _bdist_wheel.cpython-312.pyc
        |-- _setuptools_logging.cpython-312.pyc
        |-- bdist_wheel.cpython-312.pyc
        |-- ... (4 more files)
    |-- _bdist_wheel.py
    |-- _setuptools_logging.py
    |-- bdist_wheel.py
   |-- cli/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
           |-- convert.cpython-312.pyc
            -- pack.cpython-312.pyc
            |-- tags.cpython-312.pyc
            -- unpack.cpython-312.pyc
        |-- convert.py
        -- pack.py
        |-- tags.py
        -- unpack.py
    |-- ... (7 more files)
    -- vendored/
        |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
        |-- packaging/
           |-- LICENSE
            |-- LICENSE.APACHE
            -- LICENSE.BSD
            |-- init .py
            |-- __pycache__/
               |-- __init__.cpython-312.pyc
                |-- _elffile.cpython-312.pyc
                |-- _manylinux.cpython-312.pyc
                |-- _musllinux.cpython-312.pyc
                |-- _parser.cpython-312.pyc
```

```
|-- ... (8 more files)
                |-- _elffile.py
                |-- ... (12 more files)
            |-- vendor.txt
    |-- wheel-0.45.1.dist-info/
        |-- INSTALLER
        |-- LICENSE.txt
        -- METADATA
        -- RECORD
        |-- REQUESTED
        |-- ... (2 more files)
    |-- zipp/
       |-- __init__.py
        -- __pycache__/
            -- __init__.cpython-312.pyc
           |-- glob.cpython-312.pyc
        |-- compat/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- py310.cpython-312.pyc
            |-- py310.py
        |-- glob.py
    |-- zipp-3.19.2.dist-info/
        -- INSTALLER
        |-- LICENSE
        -- METADATA
        -- RECORD
        -- REQUESTED
        |-- ... (2 more files)
|-- command/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _requirestxt.cpython-312.pyc
        |-- alias.cpython-312.pyc
        |-- bdist_egg.cpython-312.pyc
        |-- bdist_rpm.cpython-312.pyc
        |-- ... (19 more files)
    -- _requirestxt.py
    |-- alias.py
    |-- bdist_egg.py
    |-- bdist_rpm.py
    |-- ... (21 more files)
|-- compat/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
       -- py310.cpython-312.pyc
        -- py311.cpython-312.pyc
        -- py312.cpython-312.pyc
        -- py39.cpython-312.pyc
    |-- py310.py
```

```
|-- py311.py
    |-- py312.py
    |-- py39.py
|-- config/
    |-- NOTICE
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _apply_pyprojecttoml.cpython-312.pyc
        |-- expand.cpython-312.pyc
        |-- pyprojecttoml.cpython-312.pyc
        |-- setupcfg.cpython-312.pyc
    |-- _apply_pyprojecttoml.py
    |-- _validate_pyproject/
       |-- NOTICE
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- error_reporting.cpython-312.pyc
            |-- extra_validations.cpython-312.pyc
            |-- fastjsonschema_exceptions.cpython-312.pyc
            |-- fastjsonschema_validations.cpython-312.pyc
            |-- ... (1 more files)
        |-- error_reporting.py
        |-- extra_validations.py
        |-- fastjsonschema exceptions.py
        |-- ... (3 more files)
    |-- distutils.schema.json
    |-- expand.py
   |-- ... (5 more files)
|-- tests/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- contexts.cpython-312.pyc
        |-- environment.cpython-312.pyc
        |-- fixtures.cpython-312.pyc
        |-- mod_with_constant.cpython-312.pyc
        |-- ... (40 more files)
    |-- compat/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- py39.cpython-312.pyc
        |-- py39.py
    |-- config/
        |-- init .py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_apply_pyprojecttoml.cpython-312.pyc
            |-- test_expand.cpython-312.pyc
            -- test_pyprojecttoml.cpython-312.pyc
            |-- test_pyprojecttoml_dynamic_deps.cpython-312.pyc
```

```
|-- downloads/
                |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
                    |-- preload.cpython-312.pyc
                -- preload.py
            |-- setupcfg_examples.txt
            |-- test_apply_pyprojecttoml.py
            |-- test_expand.py
            |-- test_pyprojecttoml.py
            |-- ... (4 more files)
        |-- contexts.py
        |-- environment.py
        |-- fixtures.py
        |-- indexes/
            |-- test_links_priority/
                |-- external.html
                |-- simple/
                    |-- foobar/
                        |-- index.html
        |-- integration/
            |-- __init__.py
            |-- ___pycache___/
                |-- __init___.cpython-312.pyc
                |-- helpers.cpython-312.pyc
                |-- test_pbr.cpython-312.pyc
                |-- test_pip_install_sdist.cpython-312.pyc
            |-- helpers.py
            -- test_pbr.py
            |-- test_pip_install_sdist.py
        |-- mod_with_constant.py
        |-- ... (45 more files)
|-- setuptools-80.9.0.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    |-- WHEEL
    |-- entry_points.txt
    |-- licenses/
       -- LICENSE
    |-- ... (2 more files)
|-- six-1.17.0.dist-info/
    |-- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    |-- WHEEL
    |-- ... (1 more files)
-- sympy/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
```

|-- ... (1 more files)

```
|-- abc.cpython-312.pyc
    |-- conftest.cpython-312.pyc
    |-- galgebra.cpython-312.pyc
    |-- release.cpython-312.pyc
    |-- ... (1 more files)
-- abc.py
|-- algebras/
    |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- quaternion.cpython-312.pyc
    |-- quaternion.py
    |-- tests/
        |-- __init__.py
        -- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test_quaternion.cpython-312.pyc
        |-- test_quaternion.py
|-- assumptions/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- ask.cpython-312.pyc
        -- ask_generated.cpython-312.pyc
        |-- assume.cpython-312.pyc
        |-- cnf.cpython-312.pyc
        |-- ... (6 more files)
    -- ask.py
    -- ask_generated.py
    -- assume.py
    -- cnf.py
    |-- ... (11 more files)
    |-- handlers/
        |-- __init__.py
        -- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- calculus.cpython-312.pyc
            |-- common.cpython-312.pyc
            |-- matrices.cpython-312.pyc
            -- ntheory.cpython-312.pyc
            |-- ... (2 more files)
        |-- calculus.py
        |-- common.py
        |-- matrices.py
        -- ntheory.py
        |-- ... (3 more files)
    |-- predicates/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- calculus.cpython-312.pyc
            -- common.cpython-312.pyc
            |-- matrices.cpython-312.pyc
```

```
|-- ntheory.cpython-312.pyc
            |-- ... (2 more files)
        |-- calculus.py
        |-- common.py
        |-- matrices.py
        |-- ntheory.py
        |-- ... (3 more files)
   |-- relation/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- binrel.cpython-312.pyc
            |-- equality.cpython-312.pyc
        |-- binrel.py
       |-- equality.py
   |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_assumptions_2.cpython-312.pyc
            -- test_context.cpython-312.pyc
            |-- test_matrices.cpython-312.pyc
            -- test_query.cpython-312.pyc
            |-- ... (5 more files)
        |-- test_assumptions_2.py
        |-- test context.py
        |-- test matrices.py
        |-- test_query.py
        |-- ... (6 more files)
|-- benchmarks/
   |-- __init__.py
   -- __pycache__/
        -- __init__.cpython-312.pyc
        |-- bench_discrete_log.cpython-312.pyc
        |-- bench_meijerint.cpython-312.pyc
        -- bench_symbench.cpython-312.pyc
    |-- bench_discrete_log.py
   |-- bench_meijerint.py
   |-- bench_symbench.py
|-- calculus/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- accumulationbounds.cpython-312.pyc
        |-- euler.cpython-312.pyc
        |-- finite_diff.cpython-312.pyc
        |-- singularities.cpython-312.pyc
        |-- ... (1 more files)
   |-- accumulationbounds.py
   |-- euler.py
   |-- finite_diff.py
    |-- singularities.py
   |-- tests/
```

```
|-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test_accumulationbounds.cpython-312.pyc
            |-- test_euler.cpython-312.pyc
            |-- test finite diff.cpython-312.pyc
            |-- test_singularities.cpython-312.pyc
            |-- ... (1 more files)
        |-- test_accumulationbounds.py
        |-- test_euler.py
        |-- test_finite_diff.py
        |-- test_singularities.py
        |-- ... (2 more files)
    |-- ... (3 more files)
|-- categories/
   |-- __init__.py
   -- __pycache__/
        -- __init__.cpython-312.pyc
        |-- baseclasses.cpython-312.pyc
        |-- diagram_drawing.cpython-312.pyc
    |-- baseclasses.py
    |-- diagram_drawing.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            -- init .cpython-312.pyc
            |-- test baseclasses.cpython-312.pyc
            |-- test_drawing.cpython-312.pyc
        |-- test_baseclasses.py
        |-- test_drawing.py
-- codegen/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- abstract_nodes.cpython-312.pyc
        |-- algorithms.cpython-312.pyc
        |-- approximations.cpython-312.pyc
        |-- ast.cpython-312.pyc
        |-- ... (12 more files)
    |-- abstract_nodes.py
    |-- algorithms.py
    |-- approximations.py
    -- ast.py
    |-- ... (14 more files)
    -- tests/
        |-- __init__.py
        |-- pycache /
            |-- __init___.cpython-312.pyc
            |-- test_abstract_nodes.cpython-312.pyc
            |-- test_algorithms.cpython-312.pyc
            |-- test_applications.cpython-312.pyc
            |-- test_approximations.cpython-312.pyc
            |-- ... (11 more files)
```

```
-- test_abstract_nodes.py
        |-- test_algorithms.py
        |-- test_applications.py
        |-- test_approximations.py
        |-- ... (12 more files)
|-- combinatorics/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- coset_table.cpython-312.pyc
        |-- fp_groups.cpython-312.pyc
        -- free_groups.cpython-312.pyc
        |-- galois.cpython-312.pyc
        |-- ... (19 more files)
   |-- coset_table.py
    |-- fp_groups.py
   |-- free_groups.py
   -- galois.py
   |-- ... (21 more files)
   |-- tests/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            -- test_coset_table.cpython-312.pyc
            -- test_fp_groups.cpython-312.pyc
            |-- test free groups.cpython-312.pyc
            |-- test galois.cpython-312.pyc
            |-- ... (18 more files)
        |-- test_coset_table.py
        |-- test_fp_groups.py
        |-- test_free_groups.py
        |-- test_galois.py
        |-- ... (19 more files)
|-- concrete/
   |-- __init__.py
   -- __pycache__/
        -- __init__.cpython-312.pyc
        -- delta.cpython-312.pyc
        |-- expr_with_intlimits.cpython-312.pyc
        |-- expr_with_limits.cpython-312.pyc
        |-- gosper.cpython-312.pyc
        |-- ... (3 more files)
    |-- delta.py
    |-- expr_with_intlimits.py
    |-- expr_with_limits.py
    |-- gosper.py
    |-- ... (5 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
            |-- test_delta.cpython-312.pyc
            |-- test_gosper.cpython-312.pyc
```

```
-- test_guess.cpython-312.pyc
            |-- test_products.cpython-312.pyc
            |-- ... (1 more files)
        |-- test_delta.py
        |-- test_gosper.py
        |-- test quess.py
        |-- test_products.py
        |-- ... (2 more files)
|-- conftest.py
|-- core/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _print_helpers.cpython-312.pyc
        |-- add.cpython-312.pyc
        |-- alphabets.cpython-312.pyc
        |-- assumptions.cpython-312.pyc
        |-- ... (33 more files)
   |-- _print_helpers.py
   |-- add.py
   |-- alphabets.py
    -- assumptions.py
   |-- ... (36 more files)
    -- benchmarks/
        |-- __init__.py
        |-- pycache /
            |-- __init__.cpython-312.pyc
            |-- bench_arit.cpython-312.pyc
            -- bench_assumptions.cpython-312.pyc
            |-- bench_basic.cpython-312.pyc
            |-- bench_expand.cpython-312.pyc
            |-- ... (2 more files)
        |-- bench_arit.py
        |-- bench_assumptions.py
        |-- bench_basic.py
        |-- bench_expand.py
        |-- ... (3 more files)
   |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_args.cpython-312.pyc
            |-- test_arit.cpython-312.pyc
            |-- test_assumptions.cpython-312.pyc
            |-- test_basic.cpython-312.pyc
            |-- ... (36 more files)
        |-- test args.py
        |-- test arit.py
        |-- test_assumptions.py
        |-- test_basic.py
       |-- ... (37 more files)
-- crypto/
   |-- __init__.py
```

```
-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- crypto.cpython-312.pyc
    -- crypto.py
    -- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_crypto.cpython-312.pyc
        |-- test_crypto.py
|-- diffgeom/
   |-- __init__.py
   -- __pycache__/
        -- __init__.cpython-312.pyc
        |-- diffgeom.cpython-312.pyc
        |-- rn.cpython-312.pyc
   |-- diffgeom.py
   |-- rn.py
   |-- tests/
       |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test class structure.cpython-312.pyc
            -- test_diffgeom.cpython-312.pyc
            |-- test_function_diffgeom_book.cpython-312.pyc
            |-- test hyperbolic space.cpython-312.pyc
        |-- test class structure.py
        |-- test_diffgeom.py
        |-- test_function_diffgeom_book.py
        -- test_hyperbolic_space.py
|-- discrete/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- convolutions.cpython-312.pyc
        |-- recurrences.cpython-312.pyc
        |-- transforms.cpython-312.pyc
   |-- convolutions.py
   -- recurrences.py
   |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_convolutions.cpython-312.pyc
            |-- test_recurrences.cpython-312.pyc
            -- test_transforms.cpython-312.pyc
        |-- test convolutions.py
        |-- test recurrences.py
        |-- test_transforms.py
   |-- transforms.py
|-- external/
   |-- __init__.py
   |-- __pycache__/
```

```
-- __init__.cpython-312.pyc
        |-- gmpy.cpython-312.pyc
        |-- importtools.cpython-312.pyc
        |-- ntheory.cpython-312.pyc
        |-- pythonmpq.cpython-312.pyc
    |-- qmpy.py
    |-- importtools.py
    |-- ntheory.py
    |-- pythonmpq.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- test_autowrap.cpython-312.pyc
            -- test_codegen.cpython-312.pyc
            |-- test_gmpy.cpython-312.pyc
            |-- test_importtools.cpython-312.pyc
            |-- ... (4 more files)
        |-- test_autowrap.py
        |-- test_codegen.py
        -- test_gmpy.py
        |-- test_importtools.py
        |-- ... (5 more files)
|-- functions/
   -- __init__.py
   |-- pycache /
       -- __init__.cpython-312.pyc
   |-- combinatorial/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- factorials.cpython-312.pyc
            |-- numbers.cpython-312.pyc
        |-- factorials.py
        |-- numbers.py
        |-- tests/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_comb_factorials.cpython-312.pyc
                -- test_comb_numbers.cpython-312.pyc
            |-- test_comb_factorials.py
            |-- test_comb_numbers.py
    -- elementary/
       |-- __init__.py
        -- __pycache__/
            |-- init .cpython-312.pyc
            |-- trigonometric special.cpython-312.pyc
            |-- complexes.cpython-312.pyc
            |-- exponential.cpython-312.pyc
            |-- hyperbolic.cpython-312.pyc
            |-- ... (4 more files)
        |-- _trigonometric_special.py
```

```
|-- benchmarks/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            -- bench_exp.cpython-312.pyc
        -- bench exp.py
    |-- complexes.py
    |-- exponential.py
    |-- hyperbolic.py
    |-- ... (7 more files)
    -- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_complexes.cpython-312.pyc
            |-- test_exponential.cpython-312.pyc
            |-- test_hyperbolic.cpython-312.pyc
            |-- test_integers.cpython-312.pyc
            |-- ... (4 more files)
        |-- test_complexes.py
        |-- test_exponential.py
        |-- test_hyperbolic.py
        |-- test_integers.py
        |-- ... (5 more files)
-- special/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- bessel.cpython-312.pyc
        |-- beta_functions.cpython-312.pyc
        |-- bsplines.cpython-312.pyc
        |-- delta_functions.cpython-312.pyc
        |-- ... (10 more files)
   -- benchmarks/
        |-- __init__.py
       |-- __pycache__/
            |-- __init__.cpython-312.pyc
           |-- bench_special.cpython-312.pyc
        |-- bench_special.py
    -- bessel.py
    |-- beta_functions.py
    |-- bsplines.py
    |-- delta_functions.py
    |-- ... (13 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_bessel.cpython-312.pyc
            |-- test_beta_functions.cpython-312.pyc
            |-- test_bsplines.cpython-312.pyc
            |-- test_delta_functions.cpython-312.pyc
            |-- ... (10 more files)
```

```
|-- test_bessel.py
            |-- test_beta_functions.py
            |-- test_bsplines.py
            |-- test_delta_functions.py
            |-- ... (11 more files)
|-- galgebra.py
|-- geometry/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- curve.cpython-312.pyc
        |-- ellipse.cpython-312.pyc
        |-- entity.cpython-312.pyc
        |-- exceptions.cpython-312.pyc
        |-- ... (6 more files)
    -- curve.py
    |-- ellipse.py
    -- entity.py
    |-- exceptions.py
    |-- ... (8 more files)
    |-- tests/
        |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_curve.cpython-312.pyc
            |-- test ellipse.cpython-312.pyc
            |-- test entity.cpython-312.pyc
            -- test_geometrysets.cpython-312.pyc
            |-- ... (6 more files)
        |-- test_curve.py
        |-- test_ellipse.py
        -- test_entity.py
        |-- test_geometrysets.py
        |-- ... (7 more files)
|-- holonomic/
   |-- __init__.py
   -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- holonomic.cpython-312.pyc
        |-- holonomicerrors.cpython-312.pyc
        |-- numerical.cpython-312.pyc
        -- recurrence.cpython-312.pyc
    |-- holonomic.py
    |-- holonomicerrors.py
    |-- numerical.py
    -- recurrence.py
    -- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_holonomic.cpython-312.pyc
            |-- test_recurrence.cpython-312.pyc
        |-- test_holonomic.py
```

```
|-- test_recurrence.py
|-- integrals/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- deltafunctions.cpython-312.pyc
        |-- heurisch.cpython-312.pyc
        |-- integrals.cpython-312.pyc
        |-- intpoly.cpython-312.pyc
        |-- ... (12 more files)
    |-- benchmarks/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- bench_integrate.cpython-312.pyc
            |-- bench_trigintegrate.cpython-312.pyc
        |-- bench_integrate.py
        |-- bench_trigintegrate.py
   |-- deltafunctions.py
    |-- heurisch.py
   |-- integrals.py
    |-- intpoly.py
   |-- ... (15 more files)
    -- tests/
        |-- __init__.py
        |-- pycache /
            |-- __init___.cpython-312.pyc
            |-- test_deltafunctions.cpython-312.pyc
            |-- test_failing_integrals.cpython-312.pyc
            |-- test_heurisch.cpython-312.pyc
            |-- test_integrals.cpython-312.pyc
            |-- ... (13 more files)
        |-- test_deltafunctions.py
        |-- test_failing_integrals.py
        |-- test_heurisch.py
        |-- test integrals.py
        |-- ... (14 more files)
|-- interactive/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- printing.cpython-312.pyc
        |-- session.cpython-312.pyc
        |-- traversal.cpython-312.pyc
    |-- printing.py
   -- session.py
   |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_interactive.cpython-312.pyc
            |-- test_ipython.cpython-312.pyc
        |-- test_interactive.py
```

```
-- test_ipython.py
    |-- traversal.py
|-- liealgebras/
   |-- __init__.py
   |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- cartan_matrix.cpython-312.pyc
        -- cartan_type.cpython-312.pyc
        |-- dynkin_diagram.cpython-312.pyc
        -- root_system.cpython-312.pyc
        |-- ... (8 more files)
    |-- cartan_matrix.py
    |-- cartan type.py
    |-- dynkin_diagram.py
   -- root_system.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_cartan_matrix.cpython-312.pyc
            -- test_cartan_type.cpython-312.pyc
            |-- test_dynkin_diagram.cpython-312.pyc
            -- test_root_system.cpython-312.pyc
            |-- ... (8 more files)
        |-- test_cartan_matrix.py
        |-- test cartan type.py
        |-- test dynkin diagram.py
        |-- test_root_system.py
        |-- ... (9 more files)
   |-- ... (10 more files)
|-- logic/
   -- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- boolalg.cpython-312.pyc
        |-- inference.cpython-312.pyc
   |-- algorithms/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- dpll.cpython-312.pyc
            -- dpll2.cpython-312.pyc
            |-- lra_theory.cpython-312.pyc
            |-- minisat22_wrapper.cpython-312.pyc
            |-- ... (2 more files)
        |-- dpll.py
        |-- dpl12.py
        |-- lra_theory.py
        |-- minisat22_wrapper.py
        |-- ... (3 more files)
    |-- boolalg.py
    |-- inference.py
    |-- tests/
```

```
-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test_boolalg.cpython-312.pyc
            |-- test_dimacs.cpython-312.pyc
            |-- test inference.cpython-312.pyc
            |-- test_lra_theory.cpython-312.pyc
        |-- test_boolalg.py
        |-- test_dimacs.py
        |-- test_inference.py
        |-- test_lra_theory.py
    |-- utilities/
        |-- __init__.py
        -- __pycache__/
            -- __init__.cpython-312.pyc
            |-- dimacs.cpython-312.pyc
        |-- dimacs.py
|-- matrices/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- decompositions.cpython-312.pyc
        |-- dense.cpython-312.pyc
        |-- determinant.cpython-312.pyc
        |-- ... (16 more files)
    -- benchmarks/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- bench_matrix.cpython-312.pyc
        |-- bench_matrix.py
    |-- common.py
    |-- decompositions.py
    -- dense.py
    |-- determinant.py
    |-- ... (20 more files)
    |-- expressions/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- _shape.cpython-312.pyc
            |-- adjoint.cpython-312.pyc
            |-- applyfunc.cpython-312.pyc
            |-- blockmatrix.cpython-312.pyc
            |-- ... (20 more files)
        -- shape.py
        |-- adjoint.py
        |-- applyfunc.py
        |-- blockmatrix.py
        |-- ... (22 more files)
        -- tests/
           |-- __init__.py
```

```
|-- __pycache__/
                |-- __init___.cpython-312.pyc
                |-- test adjoint.cpython-312.pyc
                |-- test_applyfunc.cpython-312.pyc
                |-- test_blockmatrix.cpython-312.pyc
                |-- test companion.cpython-312.pyc
                |-- ... (21 more files)
            |-- test_adjoint.py
            |-- test_applyfunc.py
            |-- test_blockmatrix.py
            |-- test_companion.py
            |-- ... (22 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test_commonmatrix.cpython-312.pyc
            -- test_decompositions.cpython-312.pyc
            |-- test_determinant.cpython-312.pyc
            |-- test_domains.cpython-312.pyc
            |-- ... (13 more files)
        |-- test_commonmatrix.py
        |-- test decompositions.py
        |-- test_determinant.py
        |-- test_domains.py
        |-- ... (14 more files)
|-- multipledispatch/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- conflict.cpython-312.pyc
        |-- core.cpython-312.pyc
        |-- dispatcher.cpython-312.pyc
        |-- utils.cpython-312.pyc
    |-- conflict.py
    |-- core.py
    |-- dispatcher.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_conflict.cpython-312.pyc
            |-- test_core.cpython-312.pyc
            |-- test_dispatcher.cpython-312.pyc
        |-- test_conflict.py
        |-- test_core.py
        |-- test dispatcher.py
    |-- utils.py
|-- ntheory/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- bbp_pi.cpython-312.pyc
```

```
-- continued_fraction.cpython-312.pyc
        |-- digits.cpython-312.pyc
        |-- ecm.cpython-312.pyc
       |-- ... (10 more files)
   -- bbp_pi.py
   |-- continued fraction.py
   -- digits.py
   -- ecm.py
   |-- ... (12 more files)
   |-- tests/
       |-- __init__.py
       |-- __pycache__/
           |-- __init__.cpython-312.pyc
            -- test_bbp_pi.cpython-312.pyc
            |-- test_continued_fraction.cpython-312.pyc
            |-- test_digits.cpython-312.pyc
            |-- test_ecm.cpython-312.pyc
            |-- ... (11 more files)
       |-- test_bbp_pi.py
        |-- test_continued_fraction.py
       |-- test_digits.py
       -- test_ecm.py
       |-- ... (12 more files)
|-- parsing/
   |-- __init__.py
   |-- pycache /
       -- __init__.cpython-312.pyc
       |-- ast_parser.cpython-312.pyc
       |-- mathematica.cpython-312.pyc
       |-- maxima.cpython-312.pyc
        |-- sym_expr.cpython-312.pyc
        |-- ... (1 more files)
   |-- ast_parser.py
   |-- autolev/
       |-- Autolev.g4
       |-- __init__.py
       |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _build_autolev_antlr.cpython-312.pyc
            |-- _listener_autolev_antlr.cpython-312.pyc
            |-- _parse_autolev_antlr.cpython-312.pyc
       |-- _antlr/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- autolevlexer.cpython-312.pyc
                |-- autolevlistener.cpython-312.pyc
                |-- autolevparser.cpython-312.pyc
            |-- autolevlexer.py
            |-- autolevlistener.py
            |-- autolevparser.py
        |-- _build_autolev_antlr.py
        |-- _listener_autolev_antlr.py
```

```
|-- _parse_autolev_antlr.py
    |-- test-examples/
        |-- README.txt
        |-- __pycache__/
            -- ruletest1.cpython-312.pyc
            |-- ruletest10.cpython-312.pyc
            |-- ruletest11.cpython-312.pyc
            |-- ruletest12.cpython-312.pyc
            |-- ruletest2.cpython-312.pyc
            |-- ... (7 more files)
        |-- pydy-example-repo/
            |-- __pycache__/
                |-- chaos pendulum.cpython-312.pyc
                |-- double_pendulum.cpython-312.pyc
                -- mass_spring_damper.cpython-312.pyc
                -- non_min_pendulum.cpython-312.pyc
            |-- chaos_pendulum.al
            |-- chaos_pendulum.py
            |-- double_pendulum.al
            |-- double_pendulum.py
            |-- mass_spring_damper.al
            |-- ... (4 more files)
        |-- ruletest1.al
        |-- ruletest1.py
        |-- ruletest10.al
        |-- ruletest10.py
        |-- ... (22 more files)
-- c/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- c_parser.cpython-312.pyc
    -- c_parser.py
|-- fortran/
   -- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- fortran_parser.cpython-312.pyc
    -- fortran_parser.py
|-- latex/
    |-- LICENSE.txt
    |-- LaTeX.g4
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _build_latex_antlr.cpython-312.pyc
        |-- _parse_latex_antlr.cpython-312.pyc
        |-- errors.cpython-312.pyc
    |-- _antlr/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- latexlexer.cpython-312.pyc
```

```
|-- latexparser.cpython-312.pyc
            |-- latexlexer.py
            |-- latexparser.py
        |-- _build_latex_antlr.py
        |-- _parse_latex_antlr.py
        |-- ... (4 more files)
        |-- lark/
            |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
                |-- latex_parser.cpython-312.pyc
                |-- transformer.cpython-312.pyc
            |-- grammar/
                |-- greek_symbols.lark
                |-- latex.lark
            |-- latex_parser.py
            |-- transformer.py
    |-- mathematica.py
    |-- maxima.py
    |-- sym_expr.py
    |-- ... (7 more files)
    -- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test ast parser.cpython-312.pyc
            |-- test autolev.cpython-312.pyc
            -- test_c_parser.cpython-312.pyc
            -- test_custom_latex.cpython-312.pyc
            |-- ... (9 more files)
        |-- test_ast_parser.py
        |-- test_autolev.py
        |-- test_c_parser.py
        |-- test_custom_latex.py
        |-- ... (10 more files)
|-- physics/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- hydrogen.cpython-312.pyc
        |-- matrices.cpython-312.pyc
        |-- paulialgebra.cpython-312.pyc
        |-- pring.cpython-312.pyc
        |-- ... (4 more files)
    |-- biomechanics/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- _mixin.cpython-312.pyc
            |-- activation.cpython-312.pyc
            |-- curve.cpython-312.pyc
            |-- musculotendon.cpython-312.pyc
        |-- _mixin.py
```

```
-- activation.py
    |-- curve.py
    |-- musculotendon.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_activation.cpython-312.pyc
            |-- test_curve.cpython-312.pyc
            |-- test_mixin.cpython-312.pyc
            -- test_musculotendon.cpython-312.pyc
        |-- test_activation.py
        |-- test curve.py
        |-- test_mixin.py
        |-- test_musculotendon.py
|-- continuum_mechanics/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- arch.cpython-312.pyc
        -- beam.cpython-312.pyc
        |-- cable.cpython-312.pyc
        |-- truss.cpython-312.pyc
    -- arch.py
    |-- beam.py
    |-- cable.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_arch.cpython-312.pyc
            -- test_beam.cpython-312.pyc
            |-- test_cable.cpython-312.pyc
            |-- test_truss.cpython-312.pyc
        |-- test_arch.py
        |-- test_beam.py
        |-- test_cable.py
        |-- test_truss.py
   |-- truss.py
|-- control/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- control_plots.cpython-312.pyc
        |-- lti.cpython-312.pyc
    |-- control_plots.py
    |-- lti.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_control_plots.cpython-312.pyc
            |-- test_lti.cpython-312.pyc
```

```
|-- test_control_plots.py
        |-- test_lti.py
|-- hep/
    |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- gamma_matrices.cpython-312.pyc
    |-- gamma_matrices.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_gamma_matrices.cpython-312.pyc
        |-- test_gamma_matrices.py
|-- hydrogen.py
|-- matrices.py
|-- mechanics/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- actuator.cpython-312.pyc
        -- body.cpython-312.pyc
        |-- body_base.cpython-312.pyc
        |-- functions.cpython-312.pyc
        |-- ... (14 more files)
    |-- actuator.py
    -- body.py
    |-- body_base.py
    |-- functions.py
    |-- ... (16 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_actuator.cpython-312.pyc
            -- test_body.cpython-312.pyc
            |-- test_functions.cpython-312.pyc
            |-- test_inertia.cpython-312.pyc
            |-- ... (20 more files)
        |-- test_actuator.py
        |-- test_body.py
        |-- test_functions.py
        |-- test_inertia.py
        |-- ... (21 more files)
|-- optics/
    |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- gaussopt.cpython-312.pyc
        |-- medium.cpython-312.pyc
        |-- polarization.cpython-312.pyc
        |-- utils.cpython-312.pyc
        |-- ... (1 more files)
```

```
-- gaussopt.py
    |-- medium.py
    |-- polarization.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_gaussopt.cpython-312.pyc
            |-- test_medium.cpython-312.pyc
            |-- test_polarization.cpython-312.pyc
            |-- test_utils.cpython-312.pyc
            |-- ... (1 more files)
        |-- test_gaussopt.py
        |-- test_medium.py
        |-- test_polarization.py
        |-- test_utils.py
        |-- ... (2 more files)
    |-- utils.py
    |-- ... (3 more files)
|-- paulialgebra.py
|-- pring.py
|-- ... (15 more files)
|-- quantum/
    |-- __init__.py
    |-- __pycache__/
       |-- init .cpython-312.pyc
        |-- anticommutator.cpython-312.pyc
        -- boson.cpython-312.pyc
        |-- cartesian.cpython-312.pyc
        |-- cg.cpython-312.pyc
        |-- ... (33 more files)
    |-- anticommutator.py
    -- boson.py
    |-- cartesian.py
    |-- cg.py
    |-- ... (35 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_anticommutator.cpython-312.pyc
            -- test_boson.cpython-312.pyc
            |-- test_cartesian.cpython-312.pyc
            |-- test_cg.cpython-312.pyc
            |-- ... (33 more files)
        |-- test_anticommutator.py
        |-- test boson.py
        |-- test_cartesian.py
        -- test_cg.py
        |-- ... (34 more files)
|-- tests/
   |-- __init__.py
    |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
        -- test_clebsch_gordan.cpython-312.pyc
        |-- test_hydrogen.cpython-312.pyc
        -- test_paulialgebra.cpython-312.pyc
        |-- test_physics_matrices.cpython-312.pyc
        |-- ... (4 more files)
    |-- test_clebsch_gordan.py
    |-- test_hydrogen.py
    |-- test_paulialgebra.py
    |-- test_physics_matrices.py
    |-- ... (5 more files)
|-- units/
    |-- __init__.py
    |-- __pycache__/
       -- __init__.cpython-312.pyc
        |-- dimensions.cpython-312.pyc
        |-- prefixes.cpython-312.pyc
        |-- quantities.cpython-312.pyc
        |-- unitsystem.cpython-312.pyc
        |-- ... (1 more files)
    |-- definitions/
       |-- __init__.py
        |-- pycache /
            |-- __init__.cpython-312.pyc
            |-- dimension_definitions.cpython-312.pyc
            |-- unit definitions.cpython-312.pyc
        |-- dimension definitions.py
        |-- unit_definitions.py
    |-- dimensions.py
    |-- prefixes.py
    |-- quantities.py
    |-- systems/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- cqs.cpython-312.pyc
            |-- length_weight_time.cpython-312.pyc
            |-- mks.cpython-312.pyc
            |-- mksa.cpython-312.pyc
            |-- ... (2 more files)
        -- cgs.py
        |-- length_weight_time.py
        -- mks.py
        |-- mksa.py
        |-- ... (3 more files)
    |-- tests/
        |-- init .py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_dimensions.cpython-312.pyc
            |-- test_dimensionsystem.cpython-312.pyc
            |-- test_prefixes.cpython-312.pyc
            |-- test_quantities.cpython-312.pyc
```

```
|-- ... (3 more files)
            |-- test_dimensions.py
            |-- test_dimensionsystem.py
            |-- test_prefixes.py
            |-- test_quantities.py
            |-- ... (4 more files)
        |-- unitsystem.py
        |-- ... (5 more files)
    |-- vector/
       |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- dyadic.cpython-312.pyc
            |-- fieldfunctions.cpython-312.pyc
            |-- frame.cpython-312.pyc
            |-- functions.cpython-312.pyc
            |-- ... (3 more files)
        |-- dyadic.py
        |-- fieldfunctions.py
        |-- frame.py
        |-- functions.py
        |-- ... (5 more files)
        |-- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- init .cpython-312.pyc
                |-- test dyadic.cpython-312.pyc
                |-- test_fieldfunctions.cpython-312.pyc
                |-- test_frame.cpython-312.pyc
                |-- test_functions.cpython-312.pyc
                |-- ... (4 more files)
            |-- test_dyadic.py
            |-- test_fieldfunctions.py
            |-- test_frame.py
            |-- test_functions.py
            |-- ... (5 more files)
|-- plotting/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- experimental_lambdify.cpython-312.pyc
        |-- plot.cpython-312.pyc
        |-- plot_implicit.cpython-312.pyc
        |-- plotgrid.cpython-312.pyc
        |-- ... (3 more files)
    -- backends/
        |-- init .py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- base_backend.cpython-312.pyc
        |-- base_backend.py
        |-- matplotlibbackend/
            |-- __init__.py
```

```
|-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- matplotlib.cpython-312.pyc
        |-- matplotlib.py
    |-- textbackend/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- text.cpython-312.pyc
        |-- text.py
|-- experimental_lambdify.py
|-- intervalmath/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- interval arithmetic.cpython-312.pyc
        |-- interval_membership.cpython-312.pyc
        |-- lib_interval.cpython-312.pyc
    |-- interval_arithmetic.py
    |-- interval_membership.py
    |-- lib_interval.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- test interval functions.cpython-312.pyc
            |-- test interval membership.cpython-312.pyc
            |-- test_intervalmath.cpython-312.pyc
        |-- test_interval_functions.py
        |-- test_interval_membership.py
        |-- test_intervalmath.py
|-- plot.py
|-- plot_implicit.py
|-- plotgrid.py
|-- pygletplot/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- color_scheme.cpython-312.pyc
        |-- managed_window.cpython-312.pyc
        |-- plot.cpython-312.pyc
        -- plot_axes.cpython-312.pyc
        |-- ... (12 more files)
    |-- color_scheme.py
    |-- managed_window.py
    |-- plot.py
    |-- plot axes.py
    |-- ... (14 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_plotting.cpython-312.pyc
```

```
|-- test_plotting.py
    |-- ... (8 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- init .cpython-312.pyc
            |-- test_experimental_lambdify.cpython-312.pyc
            |-- test_plot.cpython-312.pyc
            |-- test_plot_implicit.cpython-312.pyc
            |-- test_series.cpython-312.pyc
            |-- ... (2 more files)
        |-- test_experimental_lambdify.py
        |-- test plot.py
        |-- test_plot_implicit.py
        |-- test_region_and.png
        |-- ... (7 more files)
-- polys/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- appellseqs.cpython-312.pyc
        |-- compatibility.cpython-312.pyc
        |-- constructor.cpython-312.pyc
        -- densearith.cpython-312.pyc
        |-- ... (38 more files)
    |-- agca/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- extensions.cpython-312.pyc
            |-- homomorphisms.cpython-312.pyc
            |-- ideals.cpython-312.pyc
            |-- modules.cpython-312.pyc
        |-- extensions.py
        -- homomorphisms.py
        |-- ideals.py
        |-- modules.py
        |-- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_extensions.cpython-312.pyc
                |-- test_homomorphisms.cpython-312.pyc
                |-- test_ideals.cpython-312.pyc
                -- test_modules.cpython-312.pyc
            |-- test_extensions.py
            |-- test homomorphisms.py
            |-- test ideals.py
            |-- test_modules.py
    |-- appellseqs.py
    |-- benchmarks/
        |-- __init__.py
        |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
        |-- bench_galoispolys.cpython-312.pyc
        -- bench_groebnertools.cpython-312.pyc
        |-- bench_solvers.cpython-312.pyc
    |-- bench_galoispolys.py
    |-- bench groebnertools.py
    |-- bench_solvers.py
|-- compatibility.py
|-- constructor.py
|-- densearith.py
|-- ... (45 more files)
|-- domains/
    |-- __init__.py
    -- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- algebraicfield.cpython-312.pyc
        |-- characteristiczero.cpython-312.pyc
        |-- complexfield.cpython-312.pyc
        |-- compositedomain.cpython-312.pyc
        |-- ... (27 more files)
    |-- algebraicfield.py
    |-- characteristiczero.py
    |-- complexfield.py
    |-- compositedomain.py
    |-- ... (29 more files)
    |-- tests/
        -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_domains.cpython-312.pyc
            -- test_polynomialring.cpython-312.pyc
            -- test_quotientring.cpython-312.pyc
        |-- test_domains.py
        |-- test_polynomialring.py
        |-- test_quotientring.py
|-- matrices/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _dfm.cpython-312.pyc
        |-- _typing.cpython-312.pyc
        |-- ddm.cpython-312.pyc
        |-- dense.cpython-312.pyc
        |-- ... (10 more files)
    |-- _dfm.py
    |-- _typing.py
    |-- ddm.py
    -- dense.py
    |-- ... (12 more files)
    |-- tests/
        |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
```

```
|-- test_ddm.cpython-312.pyc
                |-- test_dense.cpython-312.pyc
                |-- test domainmatrix.cpython-312.pyc
                |-- test_domainscalar.cpython-312.pyc
                |-- ... (10 more files)
            |-- test ddm.py
            |-- test_dense.py
            |-- test_domainmatrix.py
            |-- test_domainscalar.py
            |-- ... (11 more files)
    |-- numberfields/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- basis.cpython-312.pyc
            |-- exceptions.cpython-312.pyc
            |-- galois_resolvents.cpython-312.pyc
            |-- galoisgroups.cpython-312.pyc
            |-- ... (6 more files)
        -- basis.py
        |-- exceptions.py
        |-- galois_resolvents.py
        |-- galoisgroups.py
        |-- ... (8 more files)
        -- tests/
            |-- __init__.py
            -- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_basis.cpython-312.pyc
                |-- test_galoisgroups.cpython-312.pyc
                |-- test_minpoly.cpython-312.pyc
                |-- test_modules.cpython-312.pyc
                |-- ... (4 more files)
            |-- test_basis.py
            |-- test_galoisgroups.py
            |-- test_minpoly.py
            |-- test_modules.py
            |-- ... (5 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_appellseqs.cpython-312.pyc
            -- test_constructor.cpython-312.pyc
            -- test_densearith.cpython-312.pyc
            |-- test_densebasic.cpython-312.pyc
            |-- ... (35 more files)
        |-- test appellseqs.py
        |-- test_constructor.py
        |-- test_densearith.py
        |-- test_densebasic.py
        |-- ... (36 more files)
|-- printing/
```

```
|-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        -- aesaracode.cpython-312.pyc
        |-- c.cpython-312.pyc
        |-- codeprinter.cpython-312.pyc
        |-- conventions.cpython-312.pyc
        |-- ... (31 more files)
    |-- aesaracode.py
    |-- c.py
   |-- codeprinter.py
    |-- conventions.py
    |-- ... (34 more files)
    |-- pretty/
       -- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- pretty.cpython-312.pyc
            |-- pretty_symbology.cpython-312.pyc
            |-- stringpict.cpython-312.pyc
        |-- pretty.py
        -- pretty_symbology.py
        |-- stringpict.py
        -- tests/
            |-- __init__.py
            |-- pycache /
                |-- __init__.cpython-312.pyc
                |-- test_pretty.cpython-312.pyc
            |-- test_pretty.py
   |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- test_aesaracode.cpython-312.pyc
            -- test_c.cpython-312.pyc
            |-- test_codeprinter.cpython-312.pyc
            |-- test_conventions.cpython-312.pyc
            |-- ... (31 more files)
        |-- test_aesaracode.py
        -- test_c.py
        |-- test_codeprinter.py
        |-- test_conventions.py
        |-- ... (32 more files)
-- release.py
-- sandbox/
   |-- __init__.py
   |-- pycache /
        -- __init__.cpython-312.pyc
        |-- indexed_integrals.cpython-312.pyc
    |-- indexed_integrals.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
            |-- test_indexed_integrals.cpython-312.pyc
        |-- test indexed integrals.py
|-- series/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- acceleration.cpython-312.pyc
        |-- approximants.cpython-312.pyc
        |-- aseries.cpython-312.pyc
        |-- formal.cpython-312.pyc
        |-- ... (10 more files)
    |-- acceleration.py
    |-- approximants.py
    -- aseries.py
    |-- benchmarks/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- bench_limit.cpython-312.pyc
            |-- bench_order.cpython-312.pyc
        |-- bench_limit.py
        |-- bench order.py
    |-- formal.py
    |-- ... (13 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_approximants.cpython-312.pyc
            |-- test_aseries.cpython-312.pyc
            -- test_demidovich.cpython-312.pyc
            |-- test_formal.cpython-312.pyc
            |-- ... (11 more files)
        |-- test_approximants.py
        |-- test aseries.py
        |-- test_demidovich.py
        |-- test_formal.py
        |-- ... (12 more files)
|-- sets/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- conditionset.cpython-312.pyc
        |-- contains.cpython-312.pyc
        |-- fancysets.cpython-312.pyc
        |-- ordinals.cpython-312.pyc
        |-- ... (3 more files)
    |-- conditionset.py
    |-- contains.py
    |-- fancysets.py
    -- handlers/
        |-- __init__.py
```

```
|-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- add.cpython-312.pyc
            |-- comparison.cpython-312.pyc
            |-- functions.cpython-312.pyc
            |-- intersection.cpython-312.pyc
            |-- ... (4 more files)
        |-- add.py
        |-- comparison.py
        |-- functions.py
        |-- intersection.py
        |-- ... (5 more files)
    |-- ordinals.py
    |-- ... (6 more files)
   |-- tests/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- test_conditionset.cpython-312.pyc
            |-- test_contains.cpython-312.pyc
            -- test_fancysets.cpython-312.pyc
            |-- test_ordinals.cpython-312.pyc
            |-- ... (3 more files)
        |-- test_conditionset.py
        |-- test_contains.py
        |-- test fancysets.py
        |-- test ordinals.py
        |-- ... (4 more files)
|-- simplify/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _cse_diff.cpython-312.pyc
        |-- combsimp.cpython-312.pyc
        -- cse_main.cpython-312.pyc
        |-- cse_opts.cpython-312.pyc
        |-- ... (12 more files)
   |-- _cse_diff.py
   -- combsimp.py
   |-- cse_main.py
   -- cse_opts.py
   |-- ... (14 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test combsimp.cpython-312.pyc
            -- test_cse.cpython-312.pyc
            -- test_cse_diff.cpython-312.pyc
            |-- test_epathtools.cpython-312.pyc
            |-- ... (11 more files)
        |-- test_combsimp.py
        |-- test_cse.py
```

```
|-- test_cse_diff.py
        |-- test_epathtools.py
        |-- ... (12 more files)
|-- solvers/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- bivariate.cpython-312.pyc
        -- decompogen.cpython-312.pyc
        |-- deutils.cpython-312.pyc
        |-- inequalities.cpython-312.pyc
        |-- ... (6 more files)
    |-- benchmarks/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- bench_solvers.cpython-312.pyc
        |-- bench_solvers.py
    |-- bivariate.py
    |-- decompogen.py
    -- deutils.py
    |-- diophantine/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- diophantine.cpython-312.pyc
        |-- diophantine.py
        -- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- test_diophantine.cpython-312.pyc
            |-- test_diophantine.py
    |-- inequalities.py
    |-- ode/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- hypergeometric.cpython-312.pyc
            |-- lie_group.cpython-312.pyc
            -- nonhomogeneous.cpython-312.pyc
            -- ode.cpython-312.pyc
            |-- ... (4 more files)
        |-- hypergeometric.py
        |-- lie_group.py
        |-- nonhomogeneous.py
        -- ode.py
        |-- ... (6 more files)
        -- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_lie_group.cpython-312.pyc
```

```
-- test_ode.cpython-312.pyc
                |-- test_riccati.cpython-312.pyc
                |-- test_single.cpython-312.pyc
                |-- ... (2 more files)
            |-- test_lie_group.py
            |-- test ode.py
            |-- test_riccati.py
            |-- test_single.py
            |-- ... (3 more files)
    |-- ... (11 more files)
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_constantsimp.cpython-312.pyc
            -- test_decompogen.cpython-312.pyc
            |-- test_inequalities.cpython-312.pyc
            |-- test_numeric.cpython-312.pyc
            |-- ... (6 more files)
        |-- test_constantsimp.py
        |-- test_decompogen.py
        |-- test_inequalities.py
        |-- test_numeric.py
        |-- ... (7 more files)
-- stats/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- compound_rv.cpython-312.pyc
        |-- crv.cpython-312.pyc
        -- crv_types.cpython-312.pyc
        |-- drv.cpython-312.pyc
        |-- ... (15 more files)
   |-- compound_rv.py
    -- crv.py
   -- crv_types.py
    |-- drv.py
   |-- ... (18 more files)
    |-- sampling/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- sample_numpy.cpython-312.pyc
            |-- sample_pymc.cpython-312.pyc
            |-- sample_scipy.cpython-312.pyc
        |-- sample_numpy.py
        |-- sample_pymc.py
        |-- sample_scipy.py
        -- tests/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_sample_continuous_rv.cpython-312.pyc
```

```
-- test_sample_discrete_rv.cpython-312.pyc
                |-- test_sample_finite_rv.cpython-312.pyc
            |-- test_sample_continuous_rv.py
            |-- test_sample_discrete_rv.py
            |-- test_sample_finite_rv.py
    |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_compound_rv.cpython-312.pyc
            |-- test_continuous_rv.cpython-312.pyc
            |-- test_discrete_rv.cpython-312.pyc
            |-- test_error_prop.cpython-312.pyc
            |-- ... (9 more files)
        -- test_compound_rv.py
        |-- test_continuous_rv.py
        -- test_discrete_rv.py
        -- test_error_prop.py
        |-- ... (10 more files)
|-- strategies/
   |-- __init__.py
   |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- core.cpython-312.pyc
        -- rl.cpython-312.pyc
        |-- tools.cpython-312.pyc
        |-- traverse.cpython-312.pyc
        |-- ... (2 more files)
    |-- branch/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- core.cpython-312.pyc
            |-- tools.cpython-312.pyc
            |-- traverse.cpython-312.pyc
        -- core.py
        |-- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_core.cpython-312.pyc
                -- test_tools.cpython-312.pyc
                |-- test_traverse.cpython-312.pyc
            |-- test_core.py
            |-- test_tools.py
            |-- test_traverse.py
        -- tools.py
        |-- traverse.py
   -- core.py
    |-- rl.py
    -- tests/
       |-- __init__.py
        |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
            |-- test_core.cpython-312.pyc
            |-- test_rl.cpython-312.pyc
            |-- test_tools.cpython-312.pyc
            |-- test_traverse.cpython-312.pyc
            |-- ... (1 more files)
        -- test_core.py
        |-- test_rl.py
        |-- test_tools.py
        |-- test_traverse.py
        |-- ... (2 more files)
    |-- tools.py
    |-- traverse.py
    |-- ... (5 more files)
|-- tensor/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- functions.cpython-312.pyc
        |-- index_methods.cpython-312.pyc
        |-- indexed.cpython-312.pyc
        |-- tensor.cpython-312.pyc
        |-- ... (1 more files)
    -- array/
        |-- __init__.py
        |-- pycache /
            |-- __init___.cpython-312.pyc
            |-- array_comprehension.cpython-312.pyc
            -- array_derivatives.cpython-312.pyc
            |-- arrayop.cpython-312.pyc
            -- dense_ndim_array.cpython-312.pyc
            |-- ... (3 more files)
        |-- array_comprehension.py
        |-- array_derivatives.py
        |-- arrayop.py
        -- dense_ndim_array.py
        |-- expressions/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- array_expressions.cpython-312.pyc
                |-- arrayexpr_derivatives.cpython-312.pyc
                |-- conv_array_to_indexed.cpython-312.pyc
                -- conv_array_to_matrix.cpython-312.pyc
                |-- ... (7 more files)
            |-- array_expressions.py
            |-- arrayexpr derivatives.py
            |-- conv_array_to_indexed.py
            |-- conv_array_to_matrix.py
            |-- ... (9 more files)
            |-- tests/
                |-- __init__.py
                |-- __pycache__/
```

```
-- test_array_expressions.cpython-312.pyc
                    |-- test_arrayexpr_derivatives.cpython-312.pyc
                    |-- test_as_explicit.cpython-312.pyc
                    |-- test_convert_array_to_indexed.cpython-312.pyc
                    |-- ... (4 more files)
                |-- test_array_expressions.py
                |-- test_arrayexpr_derivatives.py
                |-- test_as_explicit.py
                |-- test_convert_array_to_indexed.py
                |-- ... (5 more files)
        |-- ... (6 more files)
        |-- tests/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- test_array_comprehension.cpython-312.pyc
                |-- test_array_derivatives.cpython-312.pyc
                -- test_arrayop.cpython-312.pyc
                |-- test_immutable_ndim_array.cpython-312.pyc
                |-- ... (3 more files)
            |-- test_array_comprehension.py
            |-- test_array_derivatives.py
            -- test_arrayop.py
            |-- test_immutable_ndim_array.py
            |-- ... (4 more files)
    |-- functions.py
    -- index_methods.py
    |-- indexed.py
    |-- tensor.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- test_functions.cpython-312.pyc
            |-- test index methods.cpython-312.pyc
            |-- test_indexed.cpython-312.pyc
            |-- test_printing.cpython-312.pyc
            |-- ... (3 more files)
        |-- test_functions.py
        |-- test_index_methods.py
        |-- test_indexed.py
        |-- test_printing.py
        |-- ... (4 more files)
   |-- ... (4 more files)
|-- testing/
   |-- init .py
   -- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- matrices.cpython-312.pyc
        -- pytest.cpython-312.pyc
        |-- quality_unicode.cpython-312.pyc
        |-- randtest.cpython-312.pyc
```

-- \_\_init\_\_.cpython-312.pyc

```
|-- ... (3 more files)
    |-- matrices.py
    |-- pytest.py
    |-- quality_unicode.py
    -- randtest.py
    |-- ... (5 more files)
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- diagnose_imports.cpython-312.pyc
            |-- test_code_quality.cpython-312.pyc
            |-- test_deprecated.cpython-312.pyc
            |-- test_module_imports.cpython-312.pyc
            |-- ... (2 more files)
        |-- diagnose_imports.py
        |-- test_code_quality.py
        |-- test_deprecated.py
        |-- test_module_imports.py
        |-- ... (3 more files)
|-- ... (42 more files)
|-- unify/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- core.cpython-312.pyc
        |-- rewrite.cpython-312.pyc
        |-- usympy.cpython-312.pyc
    -- core.py
    |-- rewrite.py
    |-- tests/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_rewrite.cpython-312.pyc
            -- test_sympy.cpython-312.pyc
            |-- test_unify.cpython-312.pyc
        |-- test_rewrite.py
        -- test_sympy.py
        |-- test_unify.py
   -- usympy.py
|-- utilities/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- autowrap.cpython-312.pyc
        |-- codegen.cpython-312.pyc
        |-- decorator.cpython-312.pyc
        |-- enumerative.cpython-312.pyc
        |-- ... (14 more files)
    |-- _compilation/
        |-- __init__.py
        |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
            |-- availability.cpython-312.pyc
            |-- compilation.cpython-312.pyc
            |-- runners.cpython-312.pyc
            |-- util.cpython-312.pyc
        |-- availability.py
        |-- compilation.py
        -- runners.py
        |-- tests/
            |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
                |-- test_compilation.cpython-312.pyc
            |-- test_compilation.py
        |-- util.py
   |-- autowrap.py
    -- codegen.py
    |-- decorator.py
   |-- enumerative.py
    |-- ... (18 more files)
   |-- mathml/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
        -- data/
            |-- __init__.py
            -- __pycache__/
               -- __init__.cpython-312.pyc
            |-- mmlctop.xsl
            |-- mmltex.xsl
            |-- simple_mmlctop.xsl
   |-- tests/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_autowrap.cpython-312.pyc
            |-- test_codegen.cpython-312.pyc
            |-- test_codegen_julia.cpython-312.pyc
            -- test_codegen_octave.cpython-312.pyc
            |-- ... (15 more files)
        |-- test_autowrap.py
        |-- test_codegen.py
        |-- test_codegen_julia.py
        |-- test_codegen_octave.py
        |-- ... (16 more files)
|-- vector/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- basisdependent.cpython-312.pyc
        |-- coordsysrect.cpython-312.pyc
        |-- deloperator.cpython-312.pyc
        |-- dyadic.cpython-312.pyc
```

```
|-- ... (10 more files)
        |-- basisdependent.py
        |-- coordsysrect.py
        |-- deloperator.py
        |-- dyadic.py
        |-- ... (12 more files)
        |-- tests/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- test_coordsysrect.cpython-312.pyc
                |-- test_dyadic.cpython-312.pyc
                |-- test_field_functions.cpython-312.pyc
                |-- test_functions.cpython-312.pyc
                |-- ... (6 more files)
            |-- test_coordsysrect.py
            |-- test_dyadic.py
            |-- test_field_functions.py
            |-- test_functions.py
            |-- ... (7 more files)
|-- sympy-1.14.0.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- entry points.txt
    |-- licenses/
       -- AUTHORS
        -- LICENSE
    |-- ... (2 more files)
|-- tests/
   |-- __init__.py
    -- __pycache__/
       -- __init__.cpython-312.pyc
        -- conftest.cpython-312.pyc
        |-- test_cli.cpython-312.pyc
        -- test_cuda.cpython-312.pyc
        -- test_engine.cpython-312.pyc
        |-- ... (4 more files)
    |-- conftest.py
    |-- models/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test_instance_segmentation.cpython-312.pyc
            |-- test_object_detection.cpython-312.pyc
            |-- test semantic segmentation.cpython-312.pyc
        |-- test_instance_segmentation.py
        |-- test_object_detection.py
        |-- test_semantic_segmentation.py
    |-- test_cli.py
    -- test_cuda.py
    |-- test_engine.py
```

```
|-- ... (7 more files)
    |-- util/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test folderparser.cpython-312.pyc
            |-- test_image_utils.cpython-312.pyc
            -- test_versions.cpython-312.pyc
        |-- dummy_module/
            |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
        |-- test folderparser.py
        |-- test_image_utils.py
        |-- test_versions.py
|-- thop/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- fx_profile.cpython-312.pyc
        |-- profile.cpython-312.pyc
        -- rnn_hooks.cpython-312.pyc
        |-- utils.cpython-312.pyc
    |-- fx_profile.py
    |-- profile.py
    |-- rnn hooks.py
    |-- utils.py
    |-- vision/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- basic_hooks.cpython-312.pyc
            |-- calc_func.cpython-312.pyc
        |-- basic_hooks.py
        |-- calc_func.py
|-- torch/
   |-- _C/
       |-- _VariableFunctions.pyi
        |-- __init__.pyi
        |-- _aoti.pyi
        |-- _autograd.pyi
        -- _cpu.pyi
        |-- ... (19 more files)
    -- _C.cp312-win_amd64.pyd
    -- _VF.py
    |-- _VF.pyi
    -- __config__.py
    -- __future__.py
    |-- ... (104 more files)
    |-- __pycache__/
        |-- _VF.cpython-312.pyc
        -- __config__.cpython-312.pyc
        |-- __future__.cpython-312.pyc
```

```
|-- __init__.cpython-312.pyc
    |-- _appdirs.cpython-312.pyc
    |-- ... (39 more files)
|-- _awaits/
   |-- __init__.py
    -- __pycache__/
       |-- __init__.cpython-312.pyc
-- _custom_op/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- autograd.cpython-312.pyc
        |-- impl.cpython-312.pyc
    |-- autograd.py
   |-- impl.py
|-- _decomp/
   |-- __init__.py
   -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- decompositions.cpython-312.pyc
        |-- decompositions_for_jvp.cpython-312.pyc
        |-- decompositions_for_rng.cpython-312.pyc
    |-- decompositions.py
    |-- decompositions_for_jvp.py
    |-- decompositions_for_rng.py
-- dispatch/
    |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
       |-- python.cpython-312.pyc
   |-- python.py
-- _dynamo/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _trace_wrapped_higher_order_op.cpython-312.pyc
        |-- bytecode_analysis.cpython-312.pyc
        |-- bytecode_transformation.cpython-312.pyc
        |-- cache_size.cpython-312.pyc
        |-- ... (40 more files)
    |-- _trace_wrapped_higher_order_op.py
    -- backends/
        |-- __init__.py
        |-- ___pycache___/
            |-- __init__.cpython-312.pyc
            |-- common.cpython-312.pyc
            |-- cudagraphs.cpython-312.pyc
            |-- debugging.cpython-312.pyc
            |-- distributed.cpython-312.pyc
            |-- ... (6 more files)
        |-- common.py
        |-- cudagraphs.py
        |-- debugging.py
```

```
|-- distributed.py
        |-- ... (7 more files)
    |-- bytecode_analysis.py
   |-- bytecode_transformation.py
    -- cache_size.py
    |-- ... (45 more files)
    |-- polyfills/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- builtins.cpython-312.pyc
            |-- functools.cpython-312.pyc
            |-- fx.cpython-312.pyc
            |-- itertools.cpython-312.pyc
            |-- ... (5 more files)
        |-- builtins.py
        |-- functools.py
        |-- fx.py
        |-- itertools.py
        |-- ... (6 more files)
   |-- repro/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- after_aot.cpython-312.pyc
            |-- after dynamo.cpython-312.pyc
            |-- aoti.cpython-312.pyc
        |-- after_aot.py
        -- after_dynamo.py
       |-- aoti.py
    |-- variables/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- base.cpython-312.pyc
            |-- builder.cpython-312.pyc
            |-- builtin.cpython-312.pyc
            |-- constant.cpython-312.pyc
            |-- ... (17 more files)
        -- base.py
        |-- builder.py
        |-- builtin.py
        |-- constant.py
        |-- ... (18 more files)
-- _export/
   |-- __init__.py
   |-- pycache /
        -- __init__.cpython-312.pyc
        |-- converter.cpython-312.pyc
        -- error.cpython-312.pyc
        -- non_strict_utils.cpython-312.pyc
        -- pass_base.cpython-312.pyc
        |-- ... (4 more files)
```

```
|-- converter.py
|-- db/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- case.cpython-312.pyc
        |-- gen_example.cpython-312.pyc
        |-- logging.cpython-312.pyc
    -- case.py
    |-- examples/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- assume_constant_result.cpython-312.pyc
            |-- autograd_function.cpython-312.pyc
            |-- class_method.cpython-312.pyc
            -- cond_branch_class_method.cpython-312.pyc
            |-- ... (32 more files)
        |-- assume_constant_result.py
        |-- autograd_function.py
        |-- class_method.py
        |-- cond_branch_class_method.py
        |-- ... (33 more files)
    |-- gen_example.py
   -- logging.py
-- error.py
|-- non strict utils.py
|-- pass_base.py
|-- pass_infra/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- node_metadata.cpython-312.pyc
        |-- proxy_value.cpython-312.pyc
   |-- node_metadata.py
   |-- proxy_value.py
|-- passes/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- _node_metadata_hook.cpython-312.pyc
        |-- add_runtime_assertions_for_constraints_pass.cpython-312.pyc
        |-- collect_tracepoints_pass.cpython-312.pyc
        |-- constant_folding.cpython-312.pyc
        |-- ... (9 more files)
    -- _node_metadata_hook.py
    |-- add runtime assertions for constraints pass.py
    |-- collect tracepoints pass.py
    |-- constant_folding.py
   |-- ... (10 more files)
|-- serde/
   |-- __init__.py
    |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
            |-- aoti_schema.cpython-312.pyc
            |-- dynamic_shapes.cpython-312.pyc
            |-- schema.cpython-312.pyc
            |-- schema_check.cpython-312.pyc
            |-- ... (2 more files)
        |-- aoti_schema.py
        |-- dynamic_shapes.py
        |-- export_schema.thrift
        -- schema.py
       |-- ... (5 more files)
   |-- ... (9 more files)
-- _functorch/
   |-- __init__.py
   |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- aot_autograd.cpython-312.pyc
        |-- apis.cpython-312.pyc
        |-- autograd_function.cpython-312.pyc
        |-- batch_norm_replacement.cpython-312.pyc
        |-- ... (16 more files)
    |-- _activation_checkpointing/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- ac logging utils.cpython-312.pyc
            |-- graph info provider.cpython-312.pyc
            |-- knapsack.cpython-312.pyc
            |-- knapsack_evaluator.cpython-312.pyc
        |-- ac_logging_utils.py
        |-- graph_info_provider.py
        |-- knapsack.py
        |-- knapsack_evaluator.py
    |-- _aot_autograd/
       |-- __init__.py
       |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- autograd_cache.cpython-312.pyc
            |-- collect_metadata_analysis.cpython-312.pyc
            |-- dispatch_and_compile_graph.cpython-312.pyc
            |-- functional_utils.cpython-312.pyc
            |-- ... (9 more files)
        |-- autograd_cache.py
        |-- collect_metadata_analysis.py
        |-- dispatch_and_compile_graph.py
        |-- functional_utils.py
        |-- ... (10 more files)
    |-- aot autograd.py
   |-- apis.py
    |-- autograd_function.py
    |-- batch_norm_replacement.py
    |-- ... (19 more files)
|-- _higher_order_ops/
```

```
|-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- _invoke_quant.cpython-312.pyc
        |-- aoti_call_delegate.cpython-312.pyc
        |-- associative scan.cpython-312.pyc
        |-- auto_functionalize.cpython-312.pyc
        |-- ... (19 more files)
    |-- _invoke_quant.py
    |-- aoti_call_delegate.py
    |-- associative_scan.py
    |-- auto_functionalize.py
    |-- ... (20 more files)
|-- _inductor/
   -- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- analyze_preserves_zero_mask.cpython-312.pyc
        |-- aoti_eager.cpython-312.pyc
        |-- async_compile.cpython-312.pyc
        |-- autotune_process.cpython-312.pyc
        |-- ... (56 more files)
    |-- analyze preserves zero mask.py
    |-- aoti_eager.py
    |-- async_compile.py
    |-- autoheuristic/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- autoheuristic.cpython-312.pyc
            |-- autoheuristic_utils.cpython-312.pyc
            |-- learned_heuristic_controller.cpython-312.pyc
            |-- learnedheuristic_interface.cpython-312.pyc
        |-- artifacts/
            |-- _MMRankingA100.py
            |-- MMRankingH100.py
            |-- _MixedMMA100.py
            |-- _MixedMMH100.py
            |-- _PadMMA100.py
            |-- ... (2 more files)
            |-- __pycache__/
                |-- _MMRankingA100.cpython-312.pyc
                |-- _MMRankingH100.cpython-312.pyc
                |-- _MixedMMA100.cpython-312.pyc
                |-- _MixedMMH100.cpython-312.pyc
                |-- _PadMMA100.cpython-312.pyc
                |-- ... (1 more files)
        |-- autoheuristic.py
        |-- autoheuristic_utils.py
        |-- learned heuristic controller.py
        |-- learnedheuristic_interface.py
    |-- autotune_process.py
    |-- ... (65 more files)
```

```
-- codegen/
   |-- __init__.py
   |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- aoti_hipify_utils.cpython-312.pyc
        |-- block analysis.cpython-312.pyc
        |-- common.cpython-312.pyc
        |-- cpp.cpython-312.pyc
        |-- ... (26 more files)
    |-- aoti_hipify_utils.py
    |-- aoti_runtime/
        |-- interface.cpp
    |-- block analysis.py
    |-- common.py
    -- cpp.py
    |-- ... (32 more files)
    |-- cuda/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- cuda_cpp_scheduling.cpython-312.pyc
            -- cuda_env.cpython-312.pyc
            |-- cuda_kernel.cpython-312.pyc
            |-- cuda_template.cpython-312.pyc
            |-- ... (3 more files)
        |-- cuda cpp scheduling.py
        |-- cuda env.py
        |-- cuda_kernel.py
        |-- cuda_template.py
        |-- cutlass_lib_extensions/
            |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
                |-- gemm_operation_extensions.cpython-312.pyc
            |-- gemm_operation_extensions.py
       |-- ... (5 more files)
    |-- rocm/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- ck_conv_template.cpython-312.pyc
            -- ck_template.cpython-312.pyc
            |-- ck_universal_gemm_template.cpython-312.pyc
            |-- compile_command.cpython-312.pyc
            |-- ... (5 more files)
        |-- ck_conv_template.py
        |-- ck template.py
        |-- ck_universal_gemm_template.py
        |-- compile_command.py
       |-- ... (6 more files)
    |-- xpu/
       |-- __init__.py
        |-- __pycache__/
```

```
-- __init__.cpython-312.pyc
            |-- device_op_overrides.cpython-312.pyc
        |-- device_op_overrides.py
|-- compile_worker/
   |-- __init__.py
   |-- __main__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- subproc_pool.cpython-312.pyc
        |-- watchdog.cpython-312.pyc
    -- subproc_pool.py
   |-- watchdog.py
|-- fx_passes/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- b2b_gemm.cpython-312.pyc
        |-- binary_folding.cpython-312.pyc
        |-- ddp_fusion.cpython-312.pyc
        -- decompose_mem_bound_mm.cpython-312.pyc
        |-- ... (17 more files)
    |-- b2b gemm.py
    |-- binary_folding.py
    |-- ddp_fusion.py
    |-- decompose mem bound mm.py
    |-- ... (19 more files)
    |-- serialized_patterns/
        |-- __init__.py
        |-- pycache /
            |-- __init__.cpython-312.pyc
            |-- _sfdp_pattern_1.cpython-312.pyc
            |-- _sfdp_pattern_10.cpython-312.pyc
            -- _sfdp_pattern_11.cpython-312.pyc
            |-- _sfdp_pattern_12.cpython-312.pyc
            |-- ... (18 more files)
        |-- _sfdp_pattern_1.py
        |-- _sfdp_pattern_10.py
        |-- _sfdp_pattern_11.py
        |-- _sfdp_pattern_12.py
        |-- ... (19 more files)
|-- kernel/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- bmm.cpython-312.pyc
        |-- conv.cpython-312.pyc
        |-- flex attention.cpython-312.pyc
        |-- flex_decoding.cpython-312.pyc
        |-- ... (4 more files)
    |-- bmm.py
    -- conv.py
    |-- flex_attention.py
```

```
|-- flex_decoding.py
        |-- ... (5 more files)
    -- package/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- build_package.cpython-312.pyc
            -- package.cpython-312.pyc
            |-- pt2_archive_constants.cpython-312.pyc
        |-- build_package.py
        |-- package.py
        |-- pt2_archive_constants.py
    |-- runtime/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- autotune_cache.cpython-312.pyc
            |-- benchmarking.cpython-312.pyc
            |-- cache_dir_utils.cpython-312.pyc
            |-- compile_tasks.cpython-312.pyc
            |-- ... (7 more files)
        |-- autotune_cache.py
        |-- benchmarking.py
        |-- cache_dir_utils.py
        |-- compile_tasks.py
        |-- ... (8 more files)
|-- _lazy/
  -- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- closure.cpython-312.pyc
        |-- computation.cpython-312.pyc
        |-- config.cpython-312.pyc
        |-- debug.cpython-312.pyc
        |-- ... (6 more files)
   -- closure.py
    |-- computation.py
   |-- config.py
    -- debug.py
    |-- ... (7 more files)
|-- _library/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- autograd.cpython-312.pyc
        -- custom_ops.cpython-312.pyc
        |-- fake_class_registry.cpython-312.pyc
        |-- fake_impl.cpython-312.pyc
        |-- ... (4 more files)
   |-- autograd.py
    |-- custom_ops.py
    |-- fake_class_registry.py
    |-- fake_impl.py
```

```
|-- ... (5 more files)
|-- _logging/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- internal.cpython-312.pyc
        |-- _registrations.cpython-312.pyc
        |-- scribe.cpython-312.pyc
        |-- structured.cpython-312.pyc
    |-- _internal.py
    |-- _registrations.py
    -- scribe.py
    |-- structured.py
|-- _numpy/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _binary_ufuncs_impl.cpython-312.pyc
        |-- _casting_dicts.cpython-312.pyc
        |-- _dtypes.cpython-312.pyc
        |-- _dtypes_impl.cpython-312.pyc
        |-- ... (12 more files)
    |-- _binary_ufuncs_impl.py
    |-- _casting_dicts.py
    -- _dtypes.py
    |-- dtypes impl.py
    |-- ... (14 more files)
    |-- testing/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- utils.cpython-312.pyc
        |-- utils.py
-- _prims/
   |-- __init__.py
   -- __pycache__/
        -- __init__.cpython-312.pyc
        |-- context.cpython-312.pyc
        |-- debug_prims.cpython-312.pyc
        |-- executor.cpython-312.pyc
        -- rng_prims.cpython-312.pyc
    -- context.py
    |-- debug_prims.py
    |-- executor.py
   |-- rng_prims.py
|-- _prims_common/
   |-- init .py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- wrappers.cpython-312.pyc
   -- wrappers.py
|-- _refs/
   |-- __init__.py
```

```
-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _conversions.cpython-312.pyc
        |-- fft.cpython-312.pyc
    |-- _conversions.py
    |-- fft.py
    |-- linalg/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
    |-- nn/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
        |-- functional/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
   |-- special/
       |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
|-- _strobelight/
   |-- __init__.py
   |-- __pycache__/
        |-- init .cpython-312.pyc
        |-- cli_function_profiler.cpython-312.pyc
        |-- compile_time_profiler.cpython-312.pyc
    |-- cli_function_profiler.py
   |-- compile_time_profiler.py
|-- _subclasses/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _fake_tensor_utils.cpython-312.pyc
        |-- fake_impls.cpython-312.pyc
        |-- fake_tensor.cpython-312.pyc
        |-- fake_utils.cpython-312.pyc
        |-- ... (3 more files)
    |-- _fake_tensor_utils.py
    |-- fake_impls.py
    |-- fake_tensor.py
    |-- fake_utils.py
    |-- ... (4 more files)
-- _vendor/
    |-- __init__.py
   |-- pycache /
        |-- __init__.cpython-312.pyc
    -- packaging/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _structures.cpython-312.pyc
```

```
|-- version.cpython-312.pyc
        |-- _structures.py
        -- version.py
|-- accelerator/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
       |-- _utils.cpython-312.pyc
   |-- _utils.py
|-- amp/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- autocast_mode.cpython-312.pyc
        |-- grad_scaler.cpython-312.pyc
    |-- autocast_mode.py
    |-- grad_scaler.py
|-- ao/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
    |-- nn/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
        |-- intrinsic/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
            |-- modules/
                |-- __init__.py
                |-- __pycache__/
                    -- __init__.cpython-312.pyc
                    |-- fused.cpython-312.pyc
                |-- fused.py
            |-- gat/
                |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
                |-- modules/
                    |-- __init__.py
                    |-- __pycache__/
                        |-- __init__.cpython-312.pyc
                        |-- conv_fused.cpython-312.pyc
                        |-- linear_fused.cpython-312.pyc
                        |-- linear_relu.cpython-312.pyc
                    |-- conv fused.py
                    |-- linear_fused.py
                    |-- linear_relu.py
            |-- quantized/
                |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
```

```
|-- dynamic/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
            -- modules/
                |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
                    |-- linear_relu.cpython-312.pyc
                |-- linear_relu.py
        |-- modules/
            |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
                |-- bn_relu.cpython-312.pyc
                |-- conv_add.cpython-312.pyc
                |-- conv_relu.cpython-312.pyc
                |-- linear_relu.cpython-312.pyc
            -- bn_relu.py
            -- conv_add.py
            |-- conv_relu.py
            |-- linear_relu.py
|-- qat/
   |-- __init__.py
    |-- __pycache__/
       |-- init .cpython-312.pyc
    |-- dynamic/
        |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
        |-- modules/
            |-- __init__.py
            |-- __pycache__/
               |-- __init__.cpython-312.pyc
                |-- linear.cpython-312.pyc
            |-- linear.py
    |-- modules/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- conv.cpython-312.pyc
            -- embedding_ops.cpython-312.pyc
            |-- linear.cpython-312.pyc
        -- conv.py
        -- embedding_ops.py
        |-- linear.py
|-- quantizable/
    |-- __init__.py
    |-- ___pycache___/
       -- __init__.cpython-312.pyc
    |-- modules/
        |-- __init__.py
        |-- __pycache__/
```

```
-- __init__.cpython-312.pyc
            |-- activation.cpython-312.pyc
            |-- rnn.cpython-312.pyc
        |-- activation.py
        |-- rnn.py
|-- quantized/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- functional.cpython-312.pyc
   |-- dynamic/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- modules/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- conv.cpython-312.pyc
                |-- linear.cpython-312.pyc
                |-- rnn.cpython-312.pyc
            -- conv.py
            |-- linear.py
            |-- rnn.py
    |-- functional.py
    |-- modules/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- activation.cpython-312.pyc
            |-- batchnorm.cpython-312.pyc
            -- conv.cpython-312.pyc
            |-- dropout.cpython-312.pyc
            |-- ... (6 more files)
        |-- activation.py
        |-- batchnorm.py
        -- conv.py
        -- dropout.py
        |-- ... (7 more files)
   |-- reference/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
        -- modules/
            |-- __init__.py
            -- __pycache__/
               |-- __init__.cpython-312.pyc
                |-- conv.cpython-312.pyc
                |-- linear.cpython-312.pyc
                |-- rnn.cpython-312.pyc
                |-- sparse.cpython-312.pyc
                |-- ... (1 more files)
            -- conv.py
```

```
|-- linear.py
                |-- rnn.py
                -- sparse.py
                |-- ... (2 more files)
    |-- sparse/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- quantized/
            |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
                |-- linear.cpython-312.pyc
                |-- utils.cpython-312.pyc
            |-- dynamic/
                |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
                    |-- linear.cpython-312.pyc
                |-- linear.py
            |-- linear.py
            |-- utils.py
|-- ns/
   |-- __init__.py
    |-- __pycache__/
       |-- init .cpython-312.pyc
        |-- numeric suite.cpython-312.pyc
        |-- _numeric_suite_fx.cpython-312.pyc
    |-- _numeric_suite.py
    |-- _numeric_suite_fx.py
    |-- fx/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- graph_matcher.cpython-312.pyc
            -- graph_passes.cpython-312.pyc
            |-- mappings.cpython-312.pyc
            |-- n_shadows_utils.cpython-312.pyc
            |-- ... (5 more files)
        |-- graph_matcher.py
        -- graph_passes.py
        |-- mappings.py
        |-- n_shadows_utils.py
        |-- ... (6 more files)
|-- pruning/
   |-- __init__.py
    |-- pycache /
        |-- __init___.cpython-312.pyc
       |-- _mappings.cpython-312.pyc
    |-- _experimental/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
```

```
|-- activation_sparsifier/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- activation_sparsifier.cpython-312.pyc
        |-- activation sparsifier.py
    |-- data_scheduler/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- base_data_scheduler.cpython-312.pyc
        |-- base_data_scheduler.py
    |-- data_sparsifier/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- base_data_sparsifier.cpython-312.pyc
            |-- data_norm_sparsifier.cpython-312.pyc
            |-- quantization_utils.cpython-312.pyc
        |-- base_data_sparsifier.py
        |-- data_norm_sparsifier.py
        |-- lightning/
            |-- __init__.py
            |-- __pycache__/
                |-- __init___.cpython-312.pyc
            -- callbacks/
                |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
                    |-- _data_sparstity_utils.cpython-312.pyc
                    |-- data_sparsity.cpython-312.pyc
                |-- _data_sparstity_utils.py
                |-- data_sparsity.py
        |-- quantization_utils.py
    |-- pruner/
       |-- FPGM pruner.py
        |-- __init__.py
        |-- __pycache__/
            |-- FPGM_pruner.cpython-312.pyc
            |-- __init__.cpython-312.pyc
            |-- base_structured_sparsifier.cpython-312.pyc
            |-- lstm_saliency_pruner.cpython-312.pyc
            |-- match_utils.cpython-312.pyc
            |-- ... (3 more files)
        |-- base_structured_sparsifier.py
        |-- lstm_saliency_pruner.py
        |-- match utils.py
        |-- ... (4 more files)
-- _mappings.py
|-- scheduler/
   |-- __init__.py
    -- __pycache__/
        |-- init .cpython-312.pyc
```

```
|-- base_scheduler.cpython-312.pyc
            |-- cubic_scheduler.cpython-312.pyc
            |-- lambda_scheduler.cpython-312.pyc
        |-- base_scheduler.py
        |-- cubic_scheduler.py
        |-- lambda scheduler.py
    |-- sparsifier/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- base_sparsifier.cpython-312.pyc
            |-- nearly_diagonal_sparsifier.cpython-312.pyc
            |-- utils.cpython-312.pyc
            |-- weight_norm_sparsifier.cpython-312.pyc
        |-- base_sparsifier.py
        |-- nearly_diagonal_sparsifier.py
        |-- utils.py
        |-- weight_norm_sparsifier.py
|-- quantization/
   -- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- correct bias.cpython-312.pyc
        |-- _equalize.cpython-312.pyc
        |-- _learnable_fake_quantize.cpython-312.pyc
        |-- fake quantize.cpython-312.pyc
        |-- ... (13 more files)
    |-- _correct_bias.py
    |-- _equalize.py
    |-- _learnable_fake_quantize.py
    |-- backend_config/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _common_operator_config_utils.cpython-312.pyc
            -- _qnnpack_pt2e.cpython-312.pyc
            |-- backend_config.cpython-312.pyc
            -- executorch.cpython-312.pyc
            |-- ... (8 more files)
        |-- _common_operator_config_utils.py
        -- _qnnpack_pt2e.py
        |-- backend_config.py
        |-- executorch.py
        |-- ... (9 more files)
    |-- fake_quantize.py
    |-- ... (18 more files)
    |-- fx/
        -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- _decomposed.cpython-312.pyc
            |-- _equalize.cpython-312.pyc
            |-- _lower_to_native_backend.cpython-312.pyc
```

```
|-- convert.cpython-312.pyc
        |-- ... (14 more files)
    |-- _decomposed.py
    |-- _equalize.py
    |-- _lower_to_native_backend.py
   |-- model report/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- detector.cpython-312.pyc
            |-- model_report.cpython-312.pyc
            |-- model_report_observer.cpython-312.pyc
            |-- model_report_visualizer.cpython-312.pyc
        |-- detector.py
        |-- model_report.py
        |-- model_report_observer.py
        |-- model_report_visualizer.py
    |-- convert.py
   |-- ... (16 more files)
|-- pt2e/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _affine_quantization.cpython-312.pyc
        |-- _numeric_debugger.cpython-312.pyc
        |-- duplicate dg pass.cpython-312.pyc
        |-- export utils.cpython-312.pyc
        |-- ... (5 more files)
    |-- _affine_quantization.py
   |-- _numeric_debugger.py
   |-- duplicate_dq_pass.py
   |-- export_utils.py
    |-- ... (7 more files)
    -- representation/
       |-- __init__.py
        |-- ___pycache___/
            -- __init__.cpython-312.pyc
           -- rewrite.cpython-312.pyc
        |-- rewrite.py
|-- quantizer/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- composable_quantizer.cpython-312.pyc
        -- embedding_quantizer.cpython-312.pyc
        |-- quantizer.cpython-312.pyc
        |-- utils.cpython-312.pyc
        |-- ... (4 more files)
   |-- composable_quantizer.py
   |-- embedding_quantizer.py
   |-- quantizer.py
   |-- utils.py
    |-- ... (5 more files)
```

```
|-- autograd/
    |-- __init__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- anomaly_mode.cpython-312.pyc
        |-- forward ad.cpython-312.pyc
        |-- function.cpython-312.pyc
        |-- functional.cpython-312.pyc
        |-- ... (7 more files)
    |-- _functions/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- tensor.cpython-312.pyc
            |-- utils.cpython-312.pyc
        |-- tensor.py
        |-- utils.py
    -- anomaly_mode.py
    |-- forward_ad.py
    |-- function.py
    |-- functional.py
    |-- ... (9 more files)
|-- backends/
    |-- __init__.py
    |-- __pycache__/
       |-- init .cpython-312.pyc
    |-- _coreml/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- preprocess.cpython-312.pyc
        |-- preprocess.py
    |-- _nnapi/
       -- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- prepare.cpython-312.pyc
            |-- serializer.cpython-312.pyc
        -- prepare.py
        |-- serializer.py
    |-- cpu/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
    |-- cuda/
        |-- __init__.py
        |-- pycache /
            |-- __init__.cpython-312.pyc
    |-- cudnn/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- rnn.cpython-312.pyc
```

```
-- rnn.py
    |-- cusparselt/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
    |-- kleidiai/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
    |-- mha/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
    |-- mkl/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
   |-- mkldnn/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
   |-- mps/
       -- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
    |-- nnpack/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
   -- openmp/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
   -- opt_einsum/
        |-- __init__.py
        |-- ___pycache___/
            |-- __init__.cpython-312.pyc
   -- quantized/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
   |-- xeon/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- run_cpu.cpython-312.pyc
        -- run_cpu.py
    -- xnnpack/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
|-- bin/
   |-- asmjit.dll
```

```
|-- fbgemm.dll
    |-- protoc.exe
|-- compiler/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _cache.cpython-312.pyc
        |-- config.cpython-312.pyc
    -- _cache.py
    |-- config.py
|-- contrib/
    |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
       -- _tensorboard_vis.cpython-312.pyc
   |-- _tensorboard_vis.py
|-- cpu/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
    |-- amp/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- autocast_mode.cpython-312.pyc
            |-- grad scaler.cpython-312.pyc
        |-- autocast mode.py
        |-- grad_scaler.py
|-- cuda/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- _gpu_trace.cpython-312.pyc
        |-- _memory_viz.cpython-312.pyc
        -- _sanitizer.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- ... (13 more files)
   |-- _gpu_trace.py
    -- _memory_viz.py
    |-- _sanitizer.py
    |-- _utils.py
    |-- amp/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- autocast_mode.cpython-312.pyc
            |-- common.cpython-312.pyc
            |-- grad_scaler.cpython-312.pyc
        |-- autocast_mode.py
        |-- common.py
        |-- grad_scaler.py
    |-- ... (15 more files)
|-- distributed/
```

```
|-- __init__.py
|-- __pycache__/
    |-- __init___.cpython-312.pyc
    |-- _checkpointable.cpython-312.pyc
    |-- _composable_state.cpython-312.pyc
    |-- functional collectives.cpython-312.pyc
    |-- _functional_collectives_impl.cpython-312.pyc
    |-- ... (14 more files)
|-- _checkpointable.py
|-- _composable/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- checkpoint_activation.cpython-312.pyc
        -- contract.cpython-312.pyc
        |-- replicate.cpython-312.pyc
    |-- checkpoint_activation.py
    |-- contract.py
    |-- fsdp/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- fully shard.cpython-312.pyc
        |-- fully_shard.py
    |-- replicate.py
|-- composable state.py
|-- functional collectives.py
|-- _functional_collectives_impl.py
|-- ... (33 more files)
-- _shard/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- common_op_utils.cpython-312.pyc
        |-- metadata.cpython-312.pyc
        |-- ... (2 more files)
    |-- _utils.py
    |-- api.py
    |-- checkpoint/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
    |-- common_op_utils.py
    |-- metadata.py
    |-- ... (8 more files)
    |-- sharded optim/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- api.cpython-312.pyc
        |-- api.py
```

```
|-- sharded_tensor/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- logger.cpython-312.pyc
        |-- logging_handlers.cpython-312.pyc
        |-- metadata.cpython-312.pyc
        |-- ... (3 more files)
   |-- _ops/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- _common.cpython-312.pyc
            -- binary_cmp.cpython-312.pyc
            |-- init.cpython-312.pyc
            |-- misc_ops.cpython-312.pyc
            |-- ... (1 more files)
        -- _common.py
        |-- binary_cmp.py
        |-- init.py
        |-- misc_ops.py
       |-- ... (2 more files)
   |-- api.py
   -- logger.py
    |-- logging handlers.py
   |-- metadata.py
   |-- ... (5 more files)
|-- sharding_plan/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
       |-- api.cpython-312.pyc
   |-- api.py
|-- sharding_spec/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _internals.cpython-312.pyc
        |-- api.cpython-312.pyc
       -- chunk_sharding_spec.cpython-312.pyc
   |-- _internals.py
    |-- api.py
   |-- chunk_sharding_spec.py
   |-- chunk_sharding_spec_ops/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
           -- _common.cpython-312.pyc
            |-- embedding.cpython-312.pyc
            |-- embedding_bag.cpython-312.pyc
        -- _common.py
        |-- embedding.py
```

```
|-- embedding_bag.py
|-- _sharded_tensor/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
|-- _sharding_spec/
   |-- __init__.py
    |-- __pycache__/
       |-- __init___.cpython-312.pyc
|-- _symmetric_memory/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
-- _tensor/
   -- __init__.py
    |-- ___pycache___/
        |-- __init___.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- placement_types.cpython-312.pyc
    |-- api.py
    |-- placement_types.py
|-- _tools/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- common utils.cpython-312.pyc
        |-- fake collectives.cpython-312.pyc
        |-- fsdp2_mem_tracker.cpython-312.pyc
        |-- ilp_utils.cpython-312.pyc
        |-- ... (6 more files)
    |-- common_utils.py
    |-- fake_collectives.py
    |-- fsdp2_mem_tracker.py
    |-- ilp_utils.py
    |-- ... (7 more files)
|-- algorithms/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- join.cpython-312.pyc
    |-- _checkpoint/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            -- checkpoint_wrapper.cpython-312.pyc
        |-- checkpoint_wrapper.py
    |-- comm hooks/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- default_hooks.cpython-312.pyc
        -- default_hooks.py
    |-- _optimizer_overlap/
```

```
|-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- optimizer_overlap.cpython-312.pyc
        |-- optimizer_overlap.py
    |-- _quantization/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- quantization.cpython-312.pyc
        |-- quantization.py
    |-- ddp_comm_hooks/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- ddp zero hook.cpython-312.pyc
            |-- debugging_hooks.cpython-312.pyc
            |-- default_hooks.cpython-312.pyc
            |-- mixed_precision_hooks.cpython-312.pyc
            |-- ... (4 more files)
        |-- ddp_zero_hook.py
        -- debugging_hooks.py
        |-- default hooks.py
        |-- mixed_precision_hooks.py
        |-- ... (5 more files)
    |-- join.py
    |-- model averaging/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- averagers.cpython-312.pyc
            |-- hierarchical_model_averager.cpython-312.pyc
            |-- utils.cpython-312.pyc
        |-- averagers.py
        |-- hierarchical_model_averager.py
        |-- utils.py
|-- autograd/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
|-- checkpoint/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _async_executor.cpython-312.pyc
        |-- _async_process_executor.cpython-312.pyc
        |-- async thread executor.cpython-312.pyc
        |-- _checkpointer.cpython-312.pyc
        |-- ... (28 more files)
    |-- _async_executor.py
    -- _async_process_executor.py
    |-- _async_thread_executor.py
    |-- _checkpointer.py
```

```
|-- ... (29 more files)
|-- elastic/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- control plane.cpython-312.pyc
   |-- agent/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- server/
           |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
                |-- api.cpython-312.pyc
                -- health_check_server.cpython-312.pyc
                |-- local_elastic_agent.cpython-312.pyc
            -- api.py
            -- health_check_server.py
            |-- local_elastic_agent.py
    |-- control_plane.py
   |-- events/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- api.cpython-312.pyc
            |-- handlers.cpython-312.pyc
        |-- api.py
        |-- handlers.py
    |-- metrics/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
           |-- api.cpython-312.pyc
        |-- api.py
    |-- multiprocessing/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- api.cpython-312.pyc
            |-- redirects.cpython-312.pyc
            |-- tail_log.cpython-312.pyc
        |-- api.py
        |-- errors/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- error_handler.cpython-312.pyc
                |-- handlers.cpython-312.pyc
            |-- error_handler.py
            |-- handlers.py
        |-- redirects.py
        |-- subprocess_handler/
```

```
|-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- handlers.cpython-312.pyc
            |-- subprocess_handler.cpython-312.pyc
        |-- handlers.py
        |-- subprocess_handler.py
    |-- tail_log.py
|-- rendezvous/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- etcd stub.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- c10d_rendezvous_backend.cpython-312.pyc
        |-- dynamic rendezvous.cpython-312.pyc
        |-- ... (7 more files)
    |-- _etcd_stub.py
   |-- api.py
    |-- c10d_rendezvous_backend.py
    |-- dynamic_rendezvous.py
    |-- ... (8 more files)
|-- timer/
   |-- __init__.py
    |-- __pycache__/
        |-- init .cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- debug_info_logging.cpython-312.pyc
        |-- file_based_local_timer.cpython-312.pyc
        |-- local_timer.cpython-312.pyc
    |-- api.py
    |-- debug_info_logging.py
    |-- file_based_local_timer.py
    |-- local_timer.py
|-- utils/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- distributed.cpython-312.pyc
        |-- log_level.cpython-312.pyc
        |-- logging.cpython-312.pyc
        |-- ... (1 more files)
    |-- api.py
    |-- data/
        |-- __init__.py
        |-- pycache /
            -- __init__.cpython-312.pyc
            |-- cycling_iterator.cpython-312.pyc
            |-- elastic_distributed_sampler.cpython-312.pyc
        |-- cycling_iterator.py
        |-- elastic_distributed_sampler.py
    |-- distributed.py
```

```
|-- log_level.py
        |-- logging.py
        |-- ... (3 more files)
|-- fsdp/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _common_utils.cpython-312.pyc
        |-- _debug_utils.cpython-312.pyc
        |-- _dynamo_utils.cpython-312.pyc
        |-- _exec_order_utils.cpython-312.pyc
        |-- ... (16 more files)
    |-- common utils.py
    |-- _debug_utils.py
    |-- _dynamo_utils.py
    |-- _exec_order_utils.py
    |-- ... (18 more files)
    |-- _fully_shard/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _fsdp_api.cpython-312.pyc
            |-- _fsdp_collectives.cpython-312.pyc
            |-- _fsdp_common.cpython-312.pyc
            |-- _fsdp_init.cpython-312.pyc
            |-- ... (4 more files)
        |-- _fsdp_api.py
        |-- _fsdp_collectives.py
        |-- _fsdp_common.py
        |-- _fsdp_init.py
        |-- ... (5 more files)
|-- launcher/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- api.cpython-312.pyc
    |-- api.py
|-- nn/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- functional.cpython-312.pyc
    |-- api/
        -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- remote module.cpython-312.pyc
        |-- remote_module.py
    |-- functional.py
    |-- jit/
       |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
```

```
|-- instantiator.cpython-312.pyc
        |-- instantiator.py
        -- templates/
            |-- __init__.py
            |-- __pycache__/
                |-- __init___.cpython-312.pyc
                -- remote_module_template.cpython-312.pyc
            |-- remote_module_template.py
|-- optim/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- deprecation warning.cpython-312.pyc
        |-- apply_optimizer_in_backward.cpython-312.pyc
        |-- functional_adadelta.cpython-312.pyc
        |-- functional adagrad.cpython-312.pyc
        |-- ... (11 more files)
    |-- _deprecation_warning.py
    |-- apply_optimizer_in_backward.py
    |-- functional_adadelta.py
    |-- functional_adagrad.py
    |-- ... (13 more files)
|-- pipelining/
   |-- _IR.py
    |-- __init__.py
    |-- pycache /
        |-- IR.cpython-312.pyc
        |-- __init__.cpython-312.pyc
        |-- _backward.cpython-312.pyc
        |-- _debug.cpython-312.pyc
        |-- _unflatten.cpython-312.pyc
        |-- ... (4 more files)
    |-- _backward.py
    -- _debug.py
    |-- _unflatten.py
    |-- ... (5 more files)
|-- rpc/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
       |-- _utils.cpython-312.pyc
        |-- api.cpython-312.pyc
        |-- backend_registry.cpython-312.pyc
        |-- constants.cpython-312.pyc
        |-- ... (5 more files)
    |-- _testing/
       |-- init .py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- faulty_agent_backend_registry.cpython-312.pyc
        |-- faulty_agent_backend_registry.py
    |-- _utils.py
    |-- api.py
```

```
|-- backend_registry.py
    |-- constants.py
    |-- ... (7 more files)
|-- tensor/
    |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _api.cpython-312.pyc
        |-- _collective_utils.cpython-312.pyc
        |-- _dispatch.cpython-312.pyc
        -- _dtensor_spec.cpython-312.pyc
        |-- ... (9 more files)
    |-- _api.py
    |-- _collective_utils.py
    |-- _dispatch.py
    |-- _dtensor_spec.py
    |-- ... (14 more files)
    |-- _ops/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _common_rules.cpython-312.pyc
            |-- _conv_ops.cpython-312.pyc
            |-- _einsum_strategy.cpython-312.pyc
            -- _embedding_ops.cpython-312.pyc
            |-- ... (8 more files)
        |-- _common_rules.py
        -- _conv_ops.py
        |-- _einsum_strategy.py
        |-- _embedding_ops.py
        |-- ... (9 more files)
    |-- debug/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _comm_mode.cpython-312.pyc
            |-- _op_coverage.cpython-312.pyc
            |-- _visualize_sharding.cpython-312.pyc
        -- _comm_mode.py
        |-- _op_coverage.py
        |-- _visualize_sharding.py
    |-- experimental/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _attention.cpython-312.pyc
            |-- func map.cpython-312.pyc
            |-- _register_sharding.cpython-312.pyc
            |-- _tp_transform.cpython-312.pyc
        |-- _attention.py
        |-- _func_map.py
        -- _register_sharding.py
        |-- _tp_transform.py
```

```
|-- parallel/
            |-- __init__.py
            |-- ___pycache___/
                |-- __init__.cpython-312.pyc
                |-- _data_parallel_utils.cpython-312.pyc
                |-- utils.cpython-312.pyc
                |-- api.cpython-312.pyc
                |-- ddp.cpython-312.pyc
                |-- ... (4 more files)
            |-- _data_parallel_utils.py
            -- _utils.py
            -- api.py
            |-- ddp.py
            |-- ... (5 more files)
|-- distributions/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- bernoulli.cpython-312.pyc
        |-- beta.cpython-312.pyc
        |-- binomial.cpython-312.pyc
        |-- categorical.cpython-312.pyc
        |-- ... (42 more files)
    |-- bernoulli.py
    |-- beta.py
    |-- binomial.py
    |-- categorical.py
    |-- ... (43 more files)
|-- export/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- _draft_export.cpython-312.pyc
        |-- _remove_auto_functionalized_pass.cpython-312.pyc
        -- _remove_effect_tokens_pass.cpython-312.pyc
        |-- _safeguard.cpython-312.pyc
        |-- ... (11 more files)
    |-- _draft_export.py
    |-- _remove_auto_functionalized_pass.py
    -- _remove_effect_tokens_pass.py
    |-- _safeguard.py
    |-- ... (14 more files)
    |-- experimental/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
    -- passes/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
|-- fft/
   |-- __init__.py
    |-- __pycache__/
```

```
-- __init__.cpython-312.pyc
|-- func/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
|-- futures/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
|-- fx/
   |-- __init__.py
   |-- __pycache__/
       |-- init .cpython-312.pyc
        |-- _compatibility.cpython-312.pyc
        -- graph_pickler.cpython-312.pyc
        |-- _lazy_graph_module.cpython-312.pyc
        |-- _pytree.cpython-312.pyc
        |-- ... (14 more files)
   |-- _compatibility.py
   |-- _graph_pickler.py
   |-- _lazy_graph_module.py
   -- _pytree.py
   |-- ... (17 more files)
    |-- experimental/
        |-- __init__.py
        |-- pycache /
            |-- __init___.cpython-312.pyc
            |-- _backward_state.cpython-312.pyc
            |-- _config.cpython-312.pyc
            |-- _constant_symnode.cpython-312.pyc
            |-- _dynamism.cpython-312.pyc
            |-- ... (18 more files)
        |-- _backward_state.py
        -- _config.py
        |-- _constant_symnode.py
        |-- _dynamism.py
        |-- ... (21 more files)
        |-- migrate_gradual_types/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- constraint.cpython-312.pyc
                -- constraint_generator.cpython-312.pyc
                |-- constraint_transformation.cpython-312.pyc
                |-- operation.cpython-312.pyc
                |-- ... (3 more files)
            |-- constraint.py
            |-- constraint_generator.py
            |-- constraint_transformation.py
            |-- operation.py
            |-- ... (4 more files)
        |-- unification/
           |-- __init__.py
```

```
|-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- core.cpython-312.pyc
            |-- dispatch.cpython-312.pyc
            |-- match.cpython-312.pyc
            |-- more.cpython-312.pyc
            |-- ... (3 more files)
        -- core.py
        |-- dispatch.py
        |-- match.py
        |-- more.py
        |-- multipledispatch/
            |-- __init__.py
            |-- __pycache__/
               -- __init__.cpython-312.pyc
                |-- conflict.cpython-312.pyc
                |-- core.cpython-312.pyc
                |-- dispatcher.cpython-312.pyc
                |-- utils.cpython-312.pyc
                |-- ... (1 more files)
            |-- conflict.py
            |-- core.py
            |-- dispatcher.py
            |-- utils.py
            |-- ... (2 more files)
        |-- ... (5 more files)
-- passes/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _tensorify_python_scalars.cpython-312.pyc
        -- annotate_getitem_nodes.cpython-312.pyc
        |-- fake_tensor_prop.cpython-312.pyc
        |-- graph_drawer.cpython-312.pyc
        |-- ... (13 more files)
    |-- _tensorify_python_scalars.py
    |-- annotate_getitem_nodes.py
   -- backends/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- cudagraphs.cpython-312.pyc
        |-- cudagraphs.py
    |-- dialect/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
        -- common/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- cse_pass.cpython-312.pyc
            -- cse_pass.py
```

```
|-- graph_drawer.py
        |-- ... (19 more files)
        |-- infra/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- partitioner.cpython-312.pyc
                |-- pass_base.cpython-312.pyc
                |-- pass_manager.cpython-312.pyc
            |-- partitioner.py
            |-- pass_base.py
            |-- pass manager.py
        -- tests/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- test_pass_manager.cpython-312.pyc
            |-- test_pass_manager.py
        |-- utils/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- common.cpython-312.pyc
                |-- fuser_utils.cpython-312.pyc
                |-- matcher utils.cpython-312.pyc
                |-- matcher_with_name_node_map_utils.cpython-312.pyc
                |-- ... (1 more files)
            |-- common.py
            |-- fuser_utils.py
            |-- matcher_utils.py
            |-- matcher_with_name_node_map_utils.py
            |-- ... (2 more files)
|-- include/
   -- ATen/
        |-- ATen.h
        |-- AccumulateType.h
        -- ArrayRef.h
        |-- Backend.h
        |-- Backtrace.h
        |-- ... (127 more files)
        |-- core/
            |-- ATenGeneral.h
            |-- ATenOpList.h
            -- ATen_fwd.h
            -- ATen_pch.h
            -- Array.h
            |-- ... (72 more files)
            |-- boxing/
                |-- BoxedKernel.h
                |-- BoxedKernel_impl.h
                |-- KernelFunction.h
                |-- KernelFunction_impl.h
```

|-- fake\_tensor\_prop.py

```
|-- OperatorKernel.h
        |-- impl/
            |-- WrapFunctionIntoFunctor.h
            |-- WrapFunctionIntoRuntimeFunctor.h
            |-- boxing.h
            |-- make_boxed_from_unboxed_functor.h
            |-- test_helpers.h
    |-- dispatch/
       |-- CppSignature.h
        |-- DispatchKeyExtractor.h
        |-- Dispatcher.h
        |-- ObservedOperators.h
        |-- OperatorEntry.h
        |-- ... (2 more files)
   |-- op_registration/
        |-- adaption.h
        |-- infer_schema.h
        |-- op_allowlist.h
        |-- op_registration.h
|-- cpu/
    |-- FlushDenormal.h
    |-- Utils.h
    |-- vec/
        |-- functional.h
        |-- functional_base.h
        |-- functional bfloat16.h
        |-- intrinsics.h
        |-- sve/
            |-- sve_helper.h
            |-- vec_common_sve.h
            |-- vec_double.h
            |-- vec_float.h
            -- vec_int.h
            |-- ... (1 more files)
        |-- vec.h
        |-- vec128/
            |-- vec128.h
            |-- vec128_bfloat16_neon.h
            |-- vec128_convert.h
            |-- vec128_float_neon.h
            -- vec128_half_neon.h
            |-- ... (1 more files)
        |-- vec256/
            |-- missing_vld1_neon.h
            |-- missing_vst1_neon.h
            |-- vec256.h
            |-- vec256 16bit float.h
            -- vec256_bfloat16.h
            |-- ... (11 more files)
            |-- vsx/
                -- vec256_bfloat16_vsx.h
                -- vec256_common_vsx.h
                |-- vec256_complex_double_vsx.h
```

```
|-- vec256_complex_float_vsx.h
                |-- vec256_double_vsx.h
                |-- ... (8 more files)
            |-- zarch/
                |-- vec256_zarch.h
        |-- vec512/
            -- vec512.h
            -- vec512_bfloat16.h
            |-- vec512_complex_double.h
            |-- vec512_complex_float.h
            |-- vec512_convert.h
            |-- ... (5 more files)
        |-- ... (9 more files)
    |-- vml.h
|-- cuda/
    |-- ATenCUDAGeneral.h
    |-- ApplyGridUtils.cuh
    |-- AsmUtils.cuh
    |-- Atomic.cuh
    |-- CUDAApplyUtils.cuh
    |-- ... (34 more files)
    |-- detail/
        |-- CUDAHooks.h
        |-- DeviceThreadHandles.h
        |-- IndexUtils.cuh
        |-- IntegerDivider.cuh
        |-- KernelUtils.h
        |-- ... (5 more files)
    |-- tunable/
        |-- GemmCommon.h
        |-- GemmHipblaslt.h
        |-- GemmRocblas.h
        |-- StreamTimer.h
        |-- Tunable.h
        |-- ... (2 more files)
|-- cudnn/
    |-- Descriptors.h
    -- Handle.h
    -- Handles.h
    |-- Types.h
    |-- Utils.h
    |-- ... (1 more files)
|-- detail/
    |-- AcceleratorHooksInterface.h
    |-- CUDAHooksInterface.h
    |-- FunctionTraits.h
    |-- HIPHooksInterface.h
    |-- HPUHooksInterface.h
    |-- ... (6 more files)
|-- functorch/
    |-- ADInterpreters.h
    |-- BatchRulesHelper.h
    |-- BatchedFallback.h
```

```
|-- BatchedTensorImpl.h
    |-- BatchingMetaprogramming.h
    |-- ... (8 more files)
|-- hip/
    |-- impl/
        |-- HIPAllocatorMasgueradingAsCUDA.h
        |-- HIPCachingAllocatorMasqueradingAsCUDA.h
        |-- HIPGuardImplMasqueradingAsCUDA.h
        |-- HIPStreamMasqueradingAsCUDA.h
|-- miopen/
   |-- Descriptors.h
    |-- Exceptions.h
    |-- Handle.h
    |-- Types.h
    |-- Utils.h
    |-- ... (1 more files)
|-- mps/
   -- EmptyTensor.h
   |-- IndexKernels.h
    |-- MPSAllocator.h
    |-- MPSAllocatorInterface.h
    |-- MPSDevice.h
    |-- ... (6 more files)
|-- native/
    |-- Activation.h
    |-- AdaptivePooling.h
    |-- AmpKernels.h
    |-- BatchLinearAlgebra.h
    |-- BinaryOps.h
    |-- ... (102 more files)
    |-- cpu/
        |-- AtomicAddFloat.h
        |-- CatKernel.h
        |-- ChannelShuffleKernel.h
        -- CopyKernel.h
        |-- DepthwiseConvKernel.h
        |-- ... (26 more files)
    |-- cuda/
        |-- Activation.h
        |-- BinaryInternal.h
        |-- CUDAJitLoops.cuh
        |-- CUDALoops.cuh
        |-- CompositeRandomAccessor.h
        |-- ... (54 more files)
    |-- hip/
        |-- ck_bgemm.h
        -- ck gemm.h
        |-- ck_gemm_template.h
        |-- ck_types.h
    |-- kleidiai/
        |-- kai_kernels.h
        -- kai_pack.h
        |-- kai_ukernel_interface.h
```

```
|-- mkldnn/
        |-- xpu/
            |-- detail/
                -- Attr.h
                |-- Utils.h
                -- oneDNN.h
                |-- oneDNNContext.h
    |-- mps/
       |-- Copy.h
        |-- MPSGraphSequoiaOps.h
        |-- MPSGraphSonomaOps.h
        |-- MPSGraphVenturaOps.h
        |-- MetalShaderLibrary.h
        |-- ... (2 more files)
    -- nested/
        |-- NestedTensorBinaryOps.h
        |-- NestedTensorMath.h
        |-- NestedTensorTransformerFunctions.h
        |-- NestedTensorTransformerUtils.h
        |-- NestedTensorUtils.h
    |-- quantized/
        |-- AffineQuantizer.h
        |-- AffineQuantizerBase.h
        |-- ConvUtils.h
        -- Copy.h
        |-- FakeQuantAffine.h
        |-- ... (4 more files)
        |-- cpu/
           |-- ACLUtils.h
           |-- BinaryOps.h
            |-- EmbeddingPackedParams.h
            |-- OnednnUtils.h
            |-- QnnpackUtils.h
            |-- ... (11 more files)
    |-- transformers/
       |-- attention.h
       |-- sdp_utils_cpp.h
    |-- utils/
       |-- Factory.h
        |-- ParamUtils.h
        |-- ParamsHash.h
|-- ops/
    |-- _adaptive_avg_pool2d.h
    |-- _adaptive_avg_pool2d_backward.h
    |-- _adaptive_avg_pool2d_backward_compositeexplicitautograd_dispat
    |-- _adaptive_avg_pool2d_backward_cpu_dispatch.h
    |-- _adaptive_avg_pool2d_backward_cuda_dispatch.h
    |-- ... (6962 more files)
|-- quantized/
   |-- QTensorImpl.h
   |-- Quantizer.h
|-- xpu/
   |-- CachingHostAllocator.h
```

```
|-- PinnedMemoryAllocator.h
        |-- XPUContext.h
        |-- XPUDevice.h
        -- XPUEvent.h
        |-- ... (2 more files)
        |-- detail/
            |-- XPUHooks.h
|-- c10/
   -- core/
        |-- Allocator.h
        |-- AutogradState.h
        -- Backend.h
        |-- CPUAllocator.h
        |-- CachingDeviceAllocator.h
        |-- ... (45 more files)
        |-- impl/
            -- COW.h
            |-- COWDeleter.h
            |-- DeviceGuardImplInterface.h
            |-- FakeGuardImpl.h
            |-- GPUTrace.h
            |-- ... (12 more files)
    |-- cuda/
        |-- CUDAAlgorithm.h
        |-- CUDAAllocatorConfig.h
        |-- CUDACachingAllocator.h
        |-- CUDADeviceAssertion.h
        |-- CUDADeviceAssertionHost.h
        |-- ... (10 more files)
        |-- impl/
            |-- CUDAGuardImpl.h
            -- CUDATest.h
    |-- macros/
       |-- Export.h
        |-- Macros.h
        |-- cmake_macros.h
    |-- metal/
        -- indexing.h
        -- random.h
        |-- reduction_utils.h
        |-- special_math.h
        |-- utils.h
    |-- util/
        |-- AbortHandler.h
        |-- AlignOf.h
        |-- ApproximateClock.h
        -- Array.h
        |-- ArrayRef.h
        |-- ... (106 more files)
    |-- xpu/
        |-- XPUCachingAllocator.h
        |-- XPUDeviceProp.h
        |-- XPUException.h
```

```
|-- XPUFunctions.h
        |-- XPUMacros.h
        |-- ... (2 more files)
        |-- impl/
            |-- XPUGuardImpl.h
|-- caffe2/
   |-- serialize/
        |-- crc_alt.h
        |-- file_adapter.h
        |-- in_memory_adapter.h
        |-- inline_container.h
        |-- istream_adapter.h
        |-- ... (2 more files)
|-- cpuinfo.h
|-- dnnl.h
|-- dnnl_config.h
|-- dnnl_debug.h
|-- dnnl_ocl.h
|-- ... (19 more files)
|-- kineto/
    |-- AbstractConfig.h
    |-- ActivityProfilerInterface.h
    |-- ActivityTraceInterface.h
    |-- ActivityType.h
    |-- ClientInterface.h
    |-- ... (11 more files)
-- pybind11/
    |-- attr.h
    |-- buffer_info.h
    |-- cast.h
    -- chrono.h
    -- common.h
    |-- ... (19 more files)
    -- detail/
        |-- class.h
        -- common.h
        |-- cpp_conduit.h
        -- descr.h
        |-- exception_translation.h
        |-- ... (5 more files)
    |-- eigen/
        -- common.h
        |-- matrix.h
        -- tensor.h
-- torch/
    |-- csrc/
        |-- CudaIPCTypes.h
        |-- DataLoader.h
        |-- Device.h
        |-- DeviceAccelerator.h
        |-- Dtype.h
        |-- ... (39 more files)
        |-- api/
```

```
|-- include/
    |-- torch/
        |-- all.h
        |-- arg.h
        -- autograd.h
        |-- cuda.h
        |-- data/
            |-- dataloader/
                -- base.h
                |-- stateful.h
                |-- stateless.h
            |-- dataloader.h
            |-- dataloader_options.h
            -- datasets/
                |-- base.h
                |-- chunk.h
                |-- map.h
                |-- mnist.h
                |-- shared.h
                |-- ... (2 more files)
            |-- datasets.h
            -- detail/
                |-- data_shuttle.h
                |-- queue.h
                |-- sequencers.h
            |-- example.h
            |-- iterator.h
            |-- samplers/
                -- base.h
                |-- custom_batch_request.h
                |-- distributed.h
                -- random.h
                |-- sequential.h
                |-- ... (2 more files)
            |-- ... (8 more files)
            |-- transforms/
                -- base.h
                |-- collate.h
                -- lambda.h
                |-- stack.h
                -- tensor.h
        -- data.h
        |-- detail/
            |-- TensorDataContainer.h
            |-- static.h
        |-- ... (24 more files)
        |-- nn/
            -- cloneable.h
            |-- functional/
                |-- activation.h
                |-- batchnorm.h
                -- conv.h
                |-- distance.h
```

```
|-- ... (11 more files)
                |-- functional.h
                |-- init.h
                |-- module.h
                |-- modules/
                    |-- _functions.h
                    |-- activation.h
                    |-- adaptive.h
                    |-- batchnorm.h
                    -- common.h
                    |-- container/
                        -- any.h
                        -- any_module_holder.h
                        -- any_value.h
                        |-- functional.h
                        |-- moduledict.h
                        |-- ... (5 more files)
                    |-- ... (19 more files)
                |-- modules.h
                |-- options/
                    |-- activation.h
                    -- adaptive.h
                    |-- batchnorm.h
                    -- conv.h
                    |-- distance.h
                    |-- ... (16 more files)
                |-- ... (9 more files)
                |-- parallel/
                   -- data_parallel.h
                |-- utils/
                    |-- clip_grad.h
                    |-- convert_parameters.h
                    -- rnn.h
            -- optim/
               |-- adagrad.h
                |-- adam.h
                -- adamw.h
                -- lbfgs.h
                |-- optimizer.h
                |-- ... (4 more files)
                |-- schedulers/
                    |-- lr_scheduler.h
                    |-- reduce_on_plateau_scheduler.h
                    |-- step_lr.h
            -- serialize/
               |-- archive.h
                |-- input-archive.h
                |-- output-archive.h
                |-- tensor.h
|-- autograd/
    |-- FunctionsManual.h
    |-- InferenceMode.h
```

|-- dropout.h

```
|-- VariableTypeUtils.h
    |-- anomaly_mode.h
    |-- autograd.h
    |-- ... (44 more files)
    |-- functions/
        |-- accumulate grad.h
        |-- basic_ops.h
        -- comm.h
        |-- pybind.h
        |-- tensor.h
        |-- ... (1 more files)
    |-- generated/
        |-- Functions.h
        |-- VariableType.h
        |-- ViewFuncs.h
        |-- python_functions.h
        |-- python_return_types.h
        |-- ... (1 more files)
    |-- utils/
       |-- error_messages.h
        |-- grad_layout_contract.h
        |-- lambda_post_hook.h
        |-- python_arg_parsing.h
        |-- warnings.h
        |-- ... (1 more files)
|-- cuda/
    |-- CUDAPluggableAllocator.h
    -- Event.h
    |-- GdsFile.h
    |-- Module.h
    |-- Stream.h
    |-- ... (7 more files)
|-- distributed/
   |-- autograd/
        -- context/
            |-- container.h
            |-- context.h
        -- functions/
            -- recvrpc_backward.h
            |-- sendrpc_backward.h
        -- rpc_messages/
            |-- autograd_metadata.h
            |-- cleanup_autograd_context_req.h
            |-- cleanup_autograd_context_resp.h
            |-- propagate_gradients_req.h
            |-- propagate_gradients_resp.h
            |-- ... (5 more files)
    |-- c10d/
       -- Backend.hpp
        |-- Backoff.hpp
        |-- CUDASymmetricMemory-inl.h
        |-- CUDASymmetricMemory.hpp
        |-- DMAConnectivity.hpp
```

```
|-- ... (46 more files)
    |-- rpc/
       |-- agent_utils.h
        |-- message.h
        -- py_rref.h
        |-- python_call.h
        |-- python_functions.h
        |-- ... (22 more files)
-- dynamo/
    |-- cache_entry.h
    |-- compiled_autograd.h
    -- cpp_shim.h
    |-- cpython_defs.h
    |-- cpython_includes.h
    |-- ... (9 more files)
|-- inductor/
    |-- aoti_include/
       -- array_ref.h
       |-- common.h
        -- cpu.h
        |-- cuda.h
        |-- xpu.h
    |-- aoti_package/
        |-- model_package_loader.h
        |-- pybind.h
    |-- aoti runner/
        |-- model_container_runner.h
        |-- model_container_runner_cpu.h
        |-- model_container_runner_cuda.h
        |-- model_container_runner_xpu.h
        |-- pybind.h
    |-- aoti_runtime/
        |-- arrayref_tensor.h
        |-- device_utils.h
        |-- interface.h
        |-- model.h
        |-- model_container.h
        |-- ... (6 more files)
    |-- aoti_torch/
        |-- c/
            |-- shim.h
            |-- shim_mkldnn.h
            |-- shim_xpu.h
        |-- generated/
            |-- c_shim_cpu.h
            |-- c_shim_cuda.h
            |-- c_shim_xpu.h
        |-- mkldnn_tensor.h
        |-- oss_proxy_executor.h
        |-- proxy_executor.h
        |-- tensor_converter.h
        |-- utils.h
    -- array_ref_impl.h
```

```
-- cpp_wrapper/
        |-- array_ref.h
        -- common.h
        |-- cpu.h
        -- cuda.h
        |-- device internal/
            |-- cpu.h
            |-- cuda.h
            |-- xpu.h
        |-- xpu.h
    |-- inductor_ops.h
|-- jit/
   |-- api/
        |-- compilation_unit.h
        |-- function_impl.h
        |-- method.h
        -- module.h
        |-- object.h
    |-- backends/
        -- backend.h
        |-- backend_debug_handler.h
        |-- backend_debug_info.h
        |-- backend_detail.h
        |-- backend_exception.h
        |-- ... (4 more files)
    |-- codegen/
        |-- cuda/
            |-- interface.h
    |-- frontend/
        |-- builtin_functions.h
        |-- canonicalize_modified_loop.h
        |-- concrete_module_type.h
        |-- convert_to_ssa.h
        |-- edit_distance.h
        |-- ... (23 more files)
    |-- ir/
        |-- alias_analysis.h
        |-- attributes.h
        |-- constants.h
        |-- graph_node_list.h
        |-- graph_utils.h
        |-- ... (8 more files)
    |-- jit_log.h
    |-- jit_opt_limit.h
    |-- mobile/
        -- code.h
        |-- debug info.h
        |-- file_format.h
        |-- flatbuffer_loader.h
        |-- frame.h
        |-- ... (17 more files)
    -- passes/
        |-- add_if_then_else.h
```

```
|-- annotate_warns.h
    |-- autocast.h
    |-- bailout_graph.h
    |-- batch_mm.h
    |-- ... (84 more files)
    |-- quantization/
        |-- dedup_module_uses.h
        |-- finalize.h
        |-- fusion_passes.h
        -- helper.h
        |-- insert_observers.h
        |-- ... (4 more files)
    |-- utils/
        |-- check_alias_annotation.h
        -- memory_dag.h
        |-- op_registry.h
        |-- optimization_utils.h
        |-- subgraph_utils.h
-- python/
   -- init.h
    |-- module_python.h
    -- pybind.h
    |-- pybind_utils.h
    |-- python_arg_flatten.h
    |-- ... (11 more files)
|-- resource_guard.h
|-- runtime/
    -- argument_spec.h
    |-- autodiff.h
    |-- calculate_necessary_args.h
    |-- custom_operator.h
    |-- decomposition_registry.h
    |-- ... (26 more files)
|-- serialization/
    |-- callstack_debug_info_serialization.h
    |-- export.h
    |-- export_bytecode.h
    |-- flatbuffer_serializer.h
    |-- flatbuffer_serializer_jit.h
    |-- ... (16 more files)
|-- tensorexpr/
    -- analysis.h
    |-- block_codegen.h
    |-- bounds_inference.h
    |-- bounds_overlap.h
    -- codegen.h
    |-- ... (38 more files)
    |-- operators/
       -- conv2d.h
        |-- matmul.h
        -- misc.h
        -- norm.h
        |-- operators.h
```

```
|-- ... (4 more files)
    |-- testing/
        -- file_check.h
        |-- hooks_for_testing.h
|-- lazy/
   |-- backend/
       |-- backend_data.h
        |-- backend_device.h
        |-- backend_interface.h
        |-- lowering_context.h
    -- core/
       -- cache.h
        |-- config.h
        |-- debug_util.h
        |-- dynamic_ir.h
        |-- hash.h
        |-- ... (21 more files)
        |-- internal_ops/
           |-- ltc_ops.h
        |-- ops/
            |-- arithmetic_ir_ops.h
            |-- utils.h
    -- python/
       |-- python_util.h
    -- ts_backend/
       |-- config.h
        |-- dynamic ir.h
        |-- ir_builder.h
        -- tensor_aten_ops.h
        |-- ts_autograd_functions.h
        |-- ... (5 more files)
-- onnx/
   |-- back_compat.h
   |-- init.h
   -- onnx.h
|-- profiler/
   |-- api.h
    |-- collection.h
    |-- combined_traceback.h
    |-- containers.h
    |-- data_flow.h
    |-- ... (11 more files)
    |-- orchestration/
        |-- observer.h
        |-- python_tracer.h
       -- vulkan.h
    |-- python/
        |-- combined_traceback.h
        |-- init.h
        |-- pybind.h
    |-- standalone/
        |-- execution_trace_observer.h
        |-- itt_observer.h
```

```
|-- nvtx_observer.h
                    |-- privateusel_observer.h
                |-- stubs/
                    -- base.h
                |-- unwind/
                    |-- action.h
                    |-- communicate.h
                    |-- debug_info.h
                    |-- dwarf_enums.h
                    |-- dwarf_symbolize_enums.h
                    |-- ... (11 more files)
            |-- stable/
                |-- library.h
            -- tensor/
                -- python_tensor.h
            |-- utils/
                |-- byte_order.h
                |-- cpp_stacktraces.h
                |-- cuda_enabled.h
                |-- device_lazy_init.h
                |-- disable_torch_function.h
                |-- ... (40 more files)
            |-- xpu/
                |-- Event.h
                |-- Module.h
                |-- Stream.h
        |-- custom class.h
        |-- custom_class_detail.h
        |-- extension.h
        |-- library.h
        |-- script.h
|-- jit/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _async.cpython-312.pyc
        |-- _await.cpython-312.pyc
        |-- _builtins.cpython-312.pyc
        |-- _check.cpython-312.pyc
        |-- ... (21 more files)
    -- _async.py
    -- _await.py
    |-- _builtins.py
    -- _check.py
    |-- ... (25 more files)
    -- _passes/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _property_propagation.cpython-312.pyc
        |-- _property_propagation.py
    |-- mobile/
       |-- __init__.py
```

```
|-- __pycache__/
            |-- __init___.cpython-312.pyc
|-- lib/
   |-- XNNPACK.lib
    |-- _C.lib
    |-- asmjit.dll
    -- asmjit.lib
    |-- c10.dll
    |-- ... (25 more files)
|-- linalg/
   -- __init__.py
    |-- __pycache__/
        |-- init .cpython-312.pyc
|-- masked/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- _docs.cpython-312.pyc
        -- _ops.cpython-312.pyc
    -- _docs.py
    -- _ops.py
    |-- maskedtensor/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            -- ops refs.cpython-312.pyc
            |-- binary.cpython-312.pyc
            |-- core.cpython-312.pyc
            |-- creation.cpython-312.pyc
            |-- ... (3 more files)
        -- _ops_refs.py
        |-- binary.py
        -- core.py
        |-- creation.py
        |-- ... (4 more files)
|-- monitor/
   -- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
|-- mps/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- event.cpython-312.pyc
        |-- profiler.cpython-312.pyc
    -- event.py
   |-- profiler.py
|-- mtia/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- memory.cpython-312.pyc
```

```
|-- _utils.py
    |-- memory.py
|-- multiprocessing/
    |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _atfork.cpython-312.pyc
        |-- pool.cpython-312.pyc
        |-- queue.cpython-312.pyc
        |-- reductions.cpython-312.pyc
        |-- ... (1 more files)
    |-- _atfork.py
    |-- pool.py
    |-- queue.py
    |-- reductions.py
    |-- ... (2 more files)
|-- nested/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
    |-- _internal/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            -- nested_int.cpython-312.pyc
            |-- nested tensor.cpython-312.pyc
            |-- ops.cpython-312.pyc
            |-- sdpa.cpython-312.pyc
        |-- nested_int.py
        |-- nested_tensor.py
        -- ops.py
        -- sdpa.py
|-- nn/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _reduction.cpython-312.pyc
        |-- common_types.cpython-312.pyc
        |-- cpp.cpython-312.pyc
        |-- functional.cpython-312.pyc
        |-- ... (3 more files)
    |-- _reduction.py
    |-- attention/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- utils.cpython-312.pyc
            |-- bias.cpython-312.pyc
            |-- flex_attention.cpython-312.pyc
        |-- _utils.py
        |-- bias.py
        |-- experimental/
            |-- __init__.py
```

```
|-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- _paged_attention.cpython-312.pyc
        |-- _paged_attention.py
    |-- flex_attention.py
|-- backends/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- thnn.cpython-312.pyc
    |-- thnn.py
|-- common_types.py
|-- cpp.py
|-- functional.py
|-- ... (15 more files)
|-- intrinsic/
    |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
    |-- modules/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- fused.cpython-312.pyc
        |-- fused.py
    |-- gat/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- modules/
            |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
                |-- conv_fused.cpython-312.pyc
                |-- linear_fused.cpython-312.pyc
                |-- linear_relu.cpython-312.pyc
            |-- conv_fused.py
            |-- linear_fused.py
            |-- linear_relu.py
    |-- quantized/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- dynamic/
            |-- __init__.py
            -- __pycache__/
               -- __init__.cpython-312.pyc
            |-- modules/
                |-- __init__.py
                |-- __pycache__/
                    -- __init__.cpython-312.pyc
                    |-- linear_relu.cpython-312.pyc
                |-- linear_relu.py
```

```
|-- modules/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- bn_relu.cpython-312.pyc
                |-- conv relu.cpython-312.pyc
                |-- linear_relu.cpython-312.pyc
            -- bn_relu.py
            |-- conv_relu.py
            |-- linear_relu.py
|-- modules/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _functions.cpython-312.pyc
        |-- activation.cpython-312.pyc
        |-- adaptive.cpython-312.pyc
        |-- batchnorm.cpython-312.pyc
        |-- ... (21 more files)
    |-- _functions.py
    |-- activation.py
    |-- adaptive.py
    |-- batchnorm.py
    |-- ... (22 more files)
-- parallel/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _functions.cpython-312.pyc
        |-- comm.cpython-312.pyc
        |-- data_parallel.cpython-312.pyc
        |-- distributed.cpython-312.pyc
        |-- ... (3 more files)
    |-- _functions.py
    -- comm.py
    |-- data_parallel.py
    |-- distributed.py
    |-- ... (4 more files)
|-- qat/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
    |-- dynamic/
        |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
        |-- modules/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- linear.cpython-312.pyc
            |-- linear.py
    |-- modules/
```

```
|-- __init__.py
        |-- ___pycache___/
            |-- __init___.cpython-312.pyc
            -- conv.cpython-312.pyc
            |-- embedding_ops.cpython-312.pyc
            |-- linear.cpython-312.pyc
        -- conv.py
        |-- embedding_ops.py
        |-- linear.py
|-- quantizable/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
    |-- modules/
       |-- __init__.py
        |-- ___pycache___/
            |-- __init__.cpython-312.pyc
            |-- activation.cpython-312.pyc
            |-- rnn.cpython-312.pyc
        |-- activation.py
        |-- rnn.py
|-- quantized/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- functional.cpython-312.pyc
    -- _reference/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
        |-- modules/
            |-- __init__.py
            |-- __pycache__/
               |-- __init__.cpython-312.pyc
                |-- conv.cpython-312.pyc
                |-- linear.cpython-312.pyc
                |-- rnn.cpython-312.pyc
                |-- sparse.cpython-312.pyc
                |-- ... (1 more files)
            |-- conv.py
            |-- linear.py
            -- rnn.py
            |-- sparse.py
            |-- ... (2 more files)
    |-- dynamic/
        |-- __init__.py
        |-- pycache /
            |-- __init__.cpython-312.pyc
        |-- modules/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- conv.cpython-312.pyc
```

```
|-- linear.cpython-312.pyc
                    |-- rnn.cpython-312.pyc
                -- conv.py
                -- linear.py
                |-- rnn.py
        |-- functional.py
        |-- modules/
            |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
                |-- activation.cpython-312.pyc
                |-- batchnorm.cpython-312.pyc
                |-- conv.cpython-312.pyc
                -- dropout.cpython-312.pyc
                |-- ... (6 more files)
            |-- activation.py
            |-- batchnorm.py
            -- conv.py
            -- dropout.py
            |-- ... (7 more files)
    |-- utils/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _deprecation_utils.cpython-312.pyc
            -- named member accessor.cpython-312.pyc
            |-- _per_sample_grad.cpython-312.pyc
            |-- clip_grad.cpython-312.pyc
            |-- ... (11 more files)
        |-- _deprecation_utils.py
        |-- _expanded_weights/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- conv_expanded_weights.cpython-312.pyc
                |-- conv_utils.cpython-312.pyc
                |-- embedding_expanded_weights.cpython-312.pyc
                -- expanded_weights_impl.cpython-312.pyc
                |-- ... (5 more files)
            |-- conv_expanded_weights.py
            |-- conv_utils.py
            |-- embedding_expanded_weights.py
            |-- expanded_weights_impl.py
            |-- ... (6 more files)
        -- _named_member_accessor.py
        |-- _per_sample_grad.py
        |-- clip grad.py
        |-- ... (13 more files)
-- onnx/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _constants.cpython-312.pyc
```

```
-- _experimental.cpython-312.pyc
    |-- _flags.cpython-312.pyc
    |-- _globals.cpython-312.pyc
    |-- ... (22 more files)
|-- _constants.py
|-- _experimental.py
|-- _flags.py
|-- _globals.py
|-- _internal/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _exporter_legacy.cpython-312.pyc
        |-- _lazy_import.cpython-312.pyc
        |-- io_adapter.cpython-312.pyc
        |-- jit_utils.cpython-312.pyc
        |-- ... (3 more files)
    |-- _exporter_legacy.py
    |-- _lazy_import.py
    |-- diagnostics/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- _diagnostic.cpython-312.pyc
            |-- _rules.cpython-312.pyc
        |-- diagnostic.py
        -- _rules.py
        |-- infra/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- _infra.cpython-312.pyc
                |-- context.cpython-312.pyc
                |-- decorator.cpython-312.pyc
                |-- formatter.cpython-312.pyc
                |-- ... (1 more files)
            |-- _infra.py
            |-- context.py
            |-- decorator.py
            |-- formatter.py
            |-- sarif/
                |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
                    |-- _address.cpython-312.pyc
                    |-- _artifact.cpython-312.pyc
                    |-- artifact change.cpython-312.pyc
                    |-- _artifact_content.cpython-312.pyc
                    |-- ... (50 more files)
                |-- _address.py
                |-- _artifact.py
                |-- _artifact_change.py
                |-- _artifact_content.py
```

```
|-- ... (51 more files)
        |-- ... (3 more files)
|-- exporter/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _analysis.cpython-312.pyc
        |-- _building.cpython-312.pyc
        |-- _capture_strategies.cpython-312.pyc
        |-- _compat.cpython-312.pyc
       |-- ... (16 more files)
    |-- _analysis.py
    |-- building.py
    |-- _capture_strategies.py
   -- _compat.py
    |-- ... (18 more files)
   |-- _torchlib/
       |-- __init__.py
       |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _tensor_typing.cpython-312.pyc
            |-- _torchlib_registry.cpython-312.pyc
        |-- _tensor_typing.py
        |-- _torchlib_registry.py
        |-- ops/
           |-- __init__.py
            |-- __pycache__/
               |-- __init__.cpython-312.pyc
                |-- core.cpython-312.pyc
               |-- hop.cpython-312.pyc
            |-- core.py
            |-- hop.py
|-- fx/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _pass.cpython-312.pyc
       -- decomposition_skip.cpython-312.pyc
        -- decomposition_table.cpython-312.pyc
        |-- diagnostics.cpython-312.pyc
       |-- ... (8 more files)
   -- _pass.py
    |-- analysis/
       -- __init__.py
       |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- unsupported nodes.cpython-312.pyc
        |-- unsupported nodes.py
    |-- decomposition_skip.py
    |-- decomposition_table.py
    |-- diagnostics.py
    |-- ... (11 more files)
    -- passes/
```

```
|-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
                    |-- _utils.cpython-312.pyc
                    |-- decomp.cpython-312.pyc
                    |-- functionalization.cpython-312.pyc
                    |-- modularization.cpython-312.pyc
                    |-- ... (3 more files)
                |-- _utils.py
                -- decomp.py
                |-- functionalization.py
                |-- modularization.py
                |-- ... (4 more files)
        |-- io_adapter.py
        |-- jit_utils.py
        |-- ... (7 more files)
    |-- ... (24 more files)
|-- optim/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _adafactor.cpython-312.pyc
        |-- _functional.cpython-312.pyc
        -- adadelta.cpython-312.pyc
        |-- adagrad.cpython-312.pyc
        |-- ... (14 more files)
    |-- _adafactor.py
    |-- _functional.py
    |-- _multi_tensor/
        |-- __init__.py
        |-- __init__.pyi
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
    |-- adadelta.py
    |-- adagrad.py
    |-- ... (16 more files)
|-- package/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- _digraph.cpython-312.pyc
        |-- _directory_reader.cpython-312.pyc
        |-- _importlib.cpython-312.pyc
        |-- _mangling.cpython-312.pyc
        |-- ... (10 more files)
    |-- _digraph.py
    |-- directory reader.py
    |-- _importlib.py
    |-- _mangling.py
    |-- ... (12 more files)
    |-- analyze/
        |-- __init__.py
        |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
            |-- find_first_use_of_broken_modules.cpython-312.pyc
            |-- is_from_package.cpython-312.pyc
            |-- trace_dependencies.cpython-312.pyc
        |-- find_first_use_of_broken_modules.py
        |-- is from package.py
        |-- trace_dependencies.py
|-- profiler/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _memory_profiler.cpython-312.pyc
        |-- pattern matcher.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- itt.cpython-312.pyc
        |-- ... (2 more files)
   |-- _memory_profiler.py
   |-- _pattern_matcher.py
   |-- _utils.py
   |-- itt.py
   |-- ... (3 more files)
|-- quantization/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- numeric suite.cpython-312.pyc
        |-- numeric suite fx.cpython-312.pyc
        |-- _quantized_conversions.cpython-312.pyc
        |-- fake_quantize.cpython-312.pyc
        |-- ... (11 more files)
    |-- _numeric_suite.py
    |-- _numeric_suite_fx.py
    |-- _quantized_conversions.py
   |-- fake_quantize.py
   |-- ... (13 more files)
   |-- fx/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _equalize.cpython-312.pyc
            |-- convert.cpython-312.pyc
            |-- fuse.cpython-312.pyc
            |-- fusion_patterns.cpython-312.pyc
            |-- ... (7 more files)
        |-- _equalize.py
        |-- convert.py
        -- fuse.py
        |-- fusion_patterns.py
        |-- ... (8 more files)
|-- share/
   |-- cmake/
        |-- ATen/
            |-- ATenConfig.cmake
```

```
|-- Caffe2Config.cmake
            |-- Caffe2Targets-release.cmake
            |-- Caffe2Targets.cmake
            |-- FindCUDAToolkit.cmake
            |-- FindCUDSS.cmake
            |-- ... (4 more files)
            |-- Modules_CUDA_fix/
                |-- FindCUDA.cmake
                |-- FindCUDNN.cmake
                |-- upstream/
                    |-- CMakeInitializeConfigs.cmake
                    |-- FindCUDA/
                        |-- make2cmake.cmake
                        -- parse_cubin.cmake
                        |-- run nvcc.cmake
                        |-- select_compute_arch.cmake
                    |-- FindCUDA.cmake
                    |-- FindPackageHandleStandardArgs.cmake
                    |-- FindPackageMessage.cmake
            |-- public/
                |-- LoadHIP.cmake
                |-- cuda.cmake
                |-- gflags.cmake
                |-- glog.cmake
                |-- mkl.cmake
                |-- ... (4 more files)
        -- Torch/
            |-- TorchConfig.cmake
            |-- TorchConfigVersion.cmake
|-- signal/
   |-- __init__.py
   |-- ___pycache___/
       -- __init__.cpython-312.pyc
   |-- windows/
       |-- __init__.py
        |-- ___pycache___/
            -- __init__.cpython-312.pyc
            |-- windows.cpython-312.pyc
        |-- windows.py
-- sparse/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _semi_structured_conversions.cpython-312.pyc
        |-- _semi_structured_ops.cpython-312.pyc
        |-- _triton_ops.cpython-312.pyc
        |-- _triton_ops_meta.cpython-312.pyc
        |-- ... (1 more files)
    |-- _semi_structured_conversions.py
    |-- _semi_structured_ops.py
    -- _triton_ops.py
    |-- _triton_ops_meta.py
```

|-- Caffe2/

```
|-- ... (2 more files)
|-- special/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
|-- testing/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _comparison.cpython-312.pyc
        |-- _creation.cpython-312.pyc
        |-- _utils.cpython-312.pyc
    |-- comparison.py
    |-- _creation.py
   |-- _internal/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- autocast_test_lists.cpython-312.pyc
            |-- autograd_function_db.cpython-312.pyc
            |-- check_kernel_launches.cpython-312.pyc
            |-- common_cuda.cpython-312.pyc
            |-- ... (37 more files)
        |-- autocast_test_lists.py
        |-- autograd_function_db.py
        |-- check kernel launches.py
        |-- codegen/
            |-- __init__.py
            |-- __pycache__/
               |-- __init__.cpython-312.pyc
        -- common_cuda.py
        |-- ... (45 more files)
        |-- data/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- network1.cpython-312.pyc
                -- network2.cpython-312.pyc
            -- network1.py
            |-- network2.py
        |-- distributed/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- checkpoint_utils.cpython-312.pyc
                |-- common_state_dict.cpython-312.pyc
                |-- ddp under dist autograd test.cpython-312.pyc
                |-- distributed_test.cpython-312.pyc
                |-- ... (4 more files)
            |-- _shard/
               |-- __init__.py
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
```

```
|-- test_common.cpython-312.pyc
    |-- sharded_tensor/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- test ops common.cpython-312.pyc
            -- _test_st_common.cpython-312.pyc
        |-- _test_ops_common.py
        |-- _test_st_common.py
    |-- test_common.py
|-- _tensor/
   |-- __init__.py
   |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- common_dtensor.cpython-312.pyc
    |-- common_dtensor.py
|-- checkpoint_utils.py
|-- common_state_dict.py
|-- ddp_under_dist_autograd_test.py
|-- distributed_test.py
|-- ... (9 more files)
|-- nn/
    |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
    |-- api/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
           -- remote_module_test.cpython-312.pyc
        |-- remote_module_test.py
|-- rpc/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- dist autograd test.cpython-312.pyc
        |-- dist_optimizer_test.cpython-312.pyc
        |-- faulty_agent_rpc_test.cpython-312.pyc
        |-- faulty_rpc_agent_test_fixture.cpython-312.pyc
        |-- ... (3 more files)
    |-- dist_autograd_test.py
    |-- dist_optimizer_test.py
    |-- examples/
        -- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- parameter server test.cpython-312.pyc
            |-- reinforcement_learning_rpc_test.cpython-312.pyc
        |-- parameter_server_test.py
        |-- reinforcement_learning_rpc_test.py
    |-- faulty_agent_rpc_test.py
    |-- faulty_rpc_agent_test_fixture.py
    |-- jit/
```

```
|-- __init__.py
            |-- __pycache__/
                |-- __init___.cpython-312.pyc
                |-- dist_autograd_test.cpython-312.pyc
                |-- rpc_test.cpython-312.pyc
                |-- rpc test faulty.cpython-312.pyc
            |-- dist_autograd_test.py
            -- rpc_test.py
            |-- rpc_test_faulty.py
        |-- ... (6 more files)
|-- generated/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- annotated_fn_args.cpython-312.pyc
    |-- annotated_fn_args.py
|-- opinfo/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- core.cpython-312.pyc
        -- refs.cpython-312.pyc
        |-- utils.cpython-312.pyc
    -- core.py
    |-- definitions/
        |-- __init__.py
        |-- __pycache__/
           -- __init__.cpython-312.pyc
            |-- _masked.cpython-312.pyc
            |-- fft.cpython-312.pyc
            |-- linalg.cpython-312.pyc
            -- nested.cpython-312.pyc
            |-- ... (3 more files)
        -- _masked.py
        |-- fft.py
        |-- linalq.py
        -- nested.py
       |-- ... (4 more files)
    -- refs.py
    |-- utils.py
|-- optests/
    |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- aot_autograd.cpython-312.pyc
        |-- autograd_registration.cpython-312.pyc
        |-- fake tensor.cpython-312.pyc
        |-- generate_tests.cpython-312.pyc
        |-- ... (1 more files)
    |-- aot_autograd.py
    |-- autograd_registration.py
    |-- fake_tensor.py
    |-- generate_tests.py
```

```
|-- ... (2 more files)
        |-- test_module/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- future div.cpython-312.pyc
                |-- no_future_div.cpython-312.pyc
            |-- future_div.py
            |-- no_future_div.py
    |-- _utils.py
|-- utils/
   -- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- _appending_byte_serializer.cpython-312.pyc
        |-- _backport_slots.cpython-312.pyc
        |-- _config_module.cpython-312.pyc
        |-- _content_store.cpython-312.pyc
        |-- ... (40 more files)
    |-- _appending_byte_serializer.py
    |-- _backport_slots.py
    |-- _config_module.py
    |-- _config_typing.pyi
    |-- ... (54 more files)
    |-- _strobelight/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- cli_function_profiler.cpython-312.pyc
        |-- cli_function_profiler.py
    -- _sympy/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- functions.cpython-312.pyc
            |-- interp.cpython-312.pyc
            |-- numbers.cpython-312.pyc
            |-- printers.cpython-312.pyc
            |-- ... (5 more files)
        |-- functions.py
        |-- interp.py
        |-- numbers.py
        |-- printers.py
        |-- ... (6 more files)
    -- backcompat/
        |-- __init__.py
        |-- pycache /
            -- __init__.cpython-312.pyc
    -- benchmark/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
        |-- examples/
```

```
|-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- blas_compare_setup.cpython-312.pyc
            |-- compare.cpython-312.pyc
            |-- fuzzer.cpython-312.pyc
            -- op_benchmark.cpython-312.pyc
            |-- ... (2 more files)
        |-- blas_compare_setup.py
        -- compare.py
        |-- fuzzer.py
        |-- op_benchmark.py
        |-- ... (3 more files)
    -- op_fuzzers/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- binary.cpython-312.pyc
            |-- sparse_binary.cpython-312.pyc
            |-- sparse_unary.cpython-312.pyc
            |-- spectral.cpython-312.pyc
            |-- ... (1 more files)
        |-- binary.py
        |-- sparse_binary.py
        |-- sparse_unary.py
        |-- spectral.py
        |-- ... (2 more files)
    |-- utils/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _stubs.cpython-312.pyc
            |-- common.cpython-312.pyc
            |-- compare.cpython-312.pyc
            |-- compile.cpython-312.pyc
            |-- ... (4 more files)
        -- _stubs.py
       |-- common.py
        -- compare.py
        -- compile.py
        |-- ... (7 more files)
        |-- valgrind_wrapper/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- timer_interface.cpython-312.pyc
            |-- callgrind.h
            |-- compat_bindings.cpp
            |-- timer_callgrind_template.cpp
            |-- timer interface.py
            |-- ... (2 more files)
|-- bottleneck/
   |-- __init__.py
```

```
|-- __main__.py
   |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- __main__.cpython-312.pyc
-- data/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- backward_compatibility.cpython-312.pyc
        |-- dataloader.cpython-312.pyc
        |-- dataset.cpython-312.pyc
        |-- distributed.cpython-312.pyc
        |-- ... (3 more files)
   |-- _utils/
       -- __init__.py
        |-- ___pycache___/
            |-- __init__.cpython-312.pyc
            |-- collate.cpython-312.pyc
            |-- fetch.cpython-312.pyc
            |-- pin_memory.cpython-312.pyc
            |-- signal_handling.cpython-312.pyc
            |-- ... (1 more files)
        |-- collate.py
        |-- fetch.py
        |-- pin_memory.py
        |-- signal handling.py
        |-- ... (2 more files)
    |-- backward_compatibility.py
    |-- dataloader.py
    |-- datapipes/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _decorator.cpython-312.pyc
            |-- _hook_iterator.cpython-312.pyc
            |-- _typing.cpython-312.pyc
            |-- datapipe.cpython-312.pyc
            |-- ... (1 more files)
        |-- _decorator.py
        |-- _hook_iterator.py
        -- _typing.py
        |-- dataframe/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- dataframe_wrapper.cpython-312.pyc
                |-- dataframes.cpython-312.pyc
                |-- datapipes.cpython-312.pyc
                |-- structures.cpython-312.pyc
            |-- dataframe_wrapper.py
            |-- dataframes.py
            -- datapipes.py
            |-- structures.py
```

```
|-- ... (7 more files)
        |-- iter/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- callable.cpython-312.pyc
                |-- combinatorics.cpython-312.pyc
                |-- combining.cpython-312.pyc
                |-- filelister.cpython-312.pyc
                |-- ... (7 more files)
            |-- callable.py
            |-- combinatorics.py
            |-- combining.py
            |-- filelister.py
            |-- ... (8 more files)
        |-- map/
           |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- callable.cpython-312.pyc
                |-- combinatorics.cpython-312.pyc
                |-- combining.cpython-312.pyc
                |-- grouping.cpython-312.pyc
                |-- ... (1 more files)
            |-- callable.py
            |-- combinatorics.py
            |-- combining.py
            |-- grouping.py
            |-- ... (2 more files)
        |-- utils/
            |-- __init__.py
            |-- __pycache__/
               -- __init__.cpython-312.pyc
                |-- common.cpython-312.pyc
                |-- decoder.cpython-312.pyc
                |-- snapshot.cpython-312.pyc
            -- common.py
            -- decoder.py
            |-- snapshot.py
    |-- dataset.py
   |-- distributed.py
   |-- ... (6 more files)
|-- hipify/
   -- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- constants.cpython-312.pyc
        |-- cuda_to_hip_mappings.cpython-312.pyc
        |-- hipify_python.cpython-312.pyc
        |-- version.cpython-312.pyc
    |-- constants.py
    |-- cuda_to_hip_mappings.py
```

|-- datapipe.py

```
-- hipify_python.py
        |-- version.py
    |-- jit/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- log_extract.cpython-312.pyc
        |-- log_extract.py
    |-- model_dump/
        |-- __init__.py
        |-- __main__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- __main__.cpython-312.pyc
        |-- code.js
        |-- htm.mjs
        |-- preact.mjs
        |-- ... (2 more files)
    |-- serialization/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- config.cpython-312.pyc
        -- config.py
    |-- tensorboard/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _convert_np.cpython-312.pyc
            |-- _embedding.cpython-312.pyc
            -- _onnx_graph.cpython-312.pyc
            |-- _proto_graph.cpython-312.pyc
            |-- ... (4 more files)
        |-- _convert_np.py
        |-- _embedding.py
        |-- _onnx_graph.py
        -- _proto_graph.py
        |-- ... (5 more files)
    |-- viz/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _cycles.cpython-312.pyc
        |-- _cycles.py
|-- xpu/
   |-- __init__.py
    |-- pycache /
        -- __init__.cpython-312.pyc
        |-- _gpu_trace.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- memory.cpython-312.pyc
        |-- random.cpython-312.pyc
        |-- ... (1 more files)
```

```
-- _gpu_trace.py
        |-- _utils.py
        |-- memory.py
        -- random.py
        |-- ... (2 more files)
|-- torch-2.7.1.dist-info/
   -- INSTALLER
    -- LICENSE
    -- METADATA
    -- NOTICE
    -- RECORD
    |-- ... (3 more files)
|-- torchgen/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- code_template.cpython-312.pyc
        |-- context.cpython-312.pyc
        |-- gen.cpython-312.pyc
        -- gen_aoti_c_shim.cpython-312.pyc
        |-- ... (11 more files)
    |-- aoti/
       |-- __init__.py
        |-- __pycache__/
            |-- __init___.cpython-312.pyc
            |-- fallback ops.cpython-312.pyc
        |-- fallback_ops.py
    |-- api/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- autograd.cpython-312.pyc
            |-- cpp.cpython-312.pyc
            |-- dispatcher.cpython-312.pyc
            |-- functionalization.cpython-312.pyc
            |-- ... (8 more files)
        |-- autograd.py
        -- cpp.py
        |-- dispatcher.py
        |-- functionalization.py
        |-- ... (10 more files)
        |-- types/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- signatures.cpython-312.pyc
                |-- types.cpython-312.pyc
                |-- types_base.cpython-312.pyc
            |-- signatures.py
            |-- types.py
            -- types_base.py
    |-- code_template.py
    |-- context.py
```

```
|-- dest/
   |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- lazy_ir.cpython-312.pyc
        |-- lazy ts lowering.cpython-312.pyc
        |-- native_functions.cpython-312.pyc
        -- register_dispatch_key.cpython-312.pyc
        |-- ... (1 more files)
    |-- lazy_ir.py
    |-- lazy_ts_lowering.py
    |-- native_functions.py
    |-- register_dispatch_key.py
    |-- ... (2 more files)
|-- executorch/
   |-- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- model.cpython-312.pyc
        |-- parse.cpython-312.pyc
    |-- api/
        |-- __init__.py
        |-- pycache /
            |-- __init__.cpython-312.pyc
            -- custom_ops.cpython-312.pyc
            |-- et cpp.cpython-312.pyc
            |-- unboxing.cpython-312.pyc
        -- custom_ops.py
        -- et_cpp.py
        |-- types/
            |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
                |-- signatures.cpython-312.pyc
                -- types.cpython-312.pyc
            |-- signatures.py
            |-- types.py
        |-- unboxing.py
    -- model.py
    |-- parse.py
-- gen.py
|-- gen_aoti_c_shim.py
|-- ... (20 more files)
|-- operator_versions/
   -- __init__.py
    |-- __pycache__/
        |-- init .cpython-312.pyc
        |-- gen_mobile_upgraders.cpython-312.pyc
        |-- gen_mobile_upgraders_constant.cpython-312.pyc
    |-- gen_mobile_upgraders.py
    |-- gen_mobile_upgraders_constant.py
|-- packaged/
   |-- ATen/
```

```
|-- native/
                |-- native_functions.yaml
                |-- tags.yaml
            |-- templates/
                |-- ATenOpList.cpp
                |-- CompositeViewCopyKernels.cpp
                |-- DispatchKeyFunction.h
                |-- DispatchKeyFunctions.h
                |-- DispatchKeyFunctions_inl.h
                |-- ... (34 more files)
        |-- autograd/
           -- BUILD.bazel
            |-- README.md
            |-- __init__.py
            |-- __pycache__/
                |-- __init___.cpython-312.pyc
                |-- context.cpython-312.pyc
                |-- gen_annotated_fn_args.cpython-312.pyc
                |-- gen_autograd.cpython-312.pyc
                |-- gen_autograd_functions.cpython-312.pyc
                |-- ... (7 more files)
            |-- build.bzl
            |-- context.py
            |-- ... (14 more files)
            |-- templates/
               |-- ADInplaceOrViewType.cpp
                |-- Functions.cpp
                |-- Functions.h
                |-- TraceType.cpp
                |-- VariableType.cpp
                |-- ... (18 more files)
    |-- selective_build/
       |-- __init__.py
       |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- operator.cpython-312.pyc
            |-- selector.cpython-312.pyc
       |-- operator.py
       |-- selector.py
    |-- static_runtime/
       |-- __init__.py
       -- __pycache__/
            |-- __init__.cpython-312.pyc
            -- config.cpython-312.pyc
            |-- gen_static_runtime_ops.cpython-312.pyc
            |-- generator.cpython-312.pyc
        -- config.py
        |-- gen_static_runtime_ops.py
       |-- generator.py
|-- torchvision/
   |-- _C.pyd
   |-- __init__.py
    |-- __pycache__/
```

```
|-- __init__.cpython-312.pyc
   |-- _internally_replaced_utils.cpython-312.pyc
    |-- _meta_registrations.cpython-312.pyc
   |-- _utils.cpython-312.pyc
   |-- extension.cpython-312.pyc
    |-- ... (2 more files)
|-- _internally_replaced_utils.py
|-- _meta_registrations.py
|-- _utils.py
|-- datasets/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _optical_flow.cpython-312.pyc
        -- _stereo_matching.cpython-312.pyc
        |-- caltech.cpython-312.pyc
        |-- celeba.cpython-312.pyc
        |-- ... (45 more files)
   |-- _optical_flow.py
   |-- _stereo_matching.py
   |-- caltech.py
   -- celeba.py
   |-- ... (47 more files)
   |-- samplers/
        |-- __init__.py
        |-- pycache /
            |-- __init__.cpython-312.pyc
            |-- clip_sampler.cpython-312.pyc
        |-- clip_sampler.py
|-- ... (18 more files)
|-- io/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _load_gpu_decoder.cpython-312.pyc
        |-- _video_deprecation_warning.cpython-312.pyc
        |-- _video_opt.cpython-312.pyc
        |-- image.cpython-312.pyc
        |-- ... (2 more files)
   |-- _load_gpu_decoder.py
   |-- _video_deprecation_warning.py
   -- _video_opt.py
    |-- image.py
   |-- ... (3 more files)
|-- models/
   |-- __init__.py
   |-- __pycache__/
        -- __init__.cpython-312.pyc
       -- _api.cpython-312.pyc
        |-- _meta.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- alexnet.cpython-312.pyc
        |-- ... (18 more files)
```

```
-- _api.py
|-- _meta.py
|-- _utils.py
|-- alexnet.py
|-- ... (24 more files)
|-- detection/
    |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- anchor_utils.cpython-312.pyc
        |-- backbone_utils.cpython-312.pyc
        |-- faster_rcnn.cpython-312.pyc
        |-- ... (11 more files)
    |-- _utils.py
    |-- anchor_utils.py
    |-- backbone_utils.py
    |-- faster_rcnn.py
   |-- ... (12 more files)
|-- optical_flow/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- raft.cpython-312.pyc
    |-- utils.py
   |-- raft.py
|-- quantization/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- googlenet.cpython-312.pyc
        |-- inception.cpython-312.pyc
        |-- mobilenet.cpython-312.pyc
        |-- mobilenetv2.cpython-312.pyc
        |-- ... (4 more files)
    |-- googlenet.py
    |-- inception.py
    |-- mobilenet.py
    |-- mobilenetv2.py
    |-- ... (5 more files)
|-- segmentation/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- deeplabv3.cpython-312.pyc
        |-- fcn.cpython-312.pyc
        -- lraspp.cpython-312.pyc
    |-- _utils.py
    |-- deeplabv3.py
    -- fcn.py
    -- lraspp.py
```

```
|-- video/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- mvit.cpython-312.pyc
            |-- resnet.cpython-312.pyc
            |-- s3d.cpython-312.pyc
            |-- swin_transformer.cpython-312.pyc
        |-- mvit.py
        |-- resnet.py
        |-- s3d.py
        |-- swin_transformer.py
|-- ops/
   |-- __init__.py
    -- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- _box_convert.cpython-312.pyc
        |-- _register_onnx_ops.cpython-312.pyc
        |-- _utils.cpython-312.pyc
        |-- boxes.cpython-312.pyc
        |-- ... (14 more files)
    |-- _box_convert.py
    |-- _register_onnx_ops.py
    |-- _utils.py
    -- boxes.py
    |-- ... (15 more files)
|-- prototype/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
    -- datasets/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _api.cpython-312.pyc
            |-- _folder.cpython-312.pyc
            |-- _home.cpython-312.pyc
            |-- benchmark.cpython-312.pyc
            |-- ... (1 more files)
        |-- _api.py
        |-- _builtin/
            |-- __init__.py
            |-- __pycache__/
                |-- __init___.cpython-312.pyc
                |-- caltech.cpython-312.pyc
                |-- celeba.cpython-312.pyc
                |-- cifar.cpython-312.pyc
                |-- clevr.cpython-312.pyc
                |-- ... (18 more files)
            |-- caltech.py
            |-- caltech101.categories
            |-- caltech256.categories
            |-- celeba.py
```

```
|-- ... (33 more files)
    |-- _folder.py
    |-- _home.py
    |-- benchmark.py
    |-- ... (4 more files)
    |-- utils/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- _dataset.cpython-312.pyc
            -- _encoded.cpython-312.pyc
            |-- _internal.cpython-312.pyc
            |-- _resource.cpython-312.pyc
        |-- _dataset.py
        -- _encoded.py
        |-- _internal.py
        |-- _resource.py
|-- models/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
    |-- depth/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
        |-- stereo/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                -- crestereo.cpython-312.pyc
                |-- raft_stereo.cpython-312.pyc
            |-- crestereo.py
            |-- raft_stereo.py
|-- transforms/
    |-- __init__.py
    |-- ___pycache___/
        |-- __init__.cpython-312.pyc
        |-- _augment.cpython-312.pyc
        |-- _geometry.cpython-312.pyc
        |-- _misc.cpython-312.pyc
        |-- _presets.cpython-312.pyc
        |-- ... (1 more files)
    |-- _augment.py
    |-- _geometry.py
    |-- _misc.py
    -- _presets.py
    |-- ... (2 more files)
|-- tv tensors/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _label.cpython-312.pyc
    |-- _label.py
```

```
|-- utils/
       |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- _internal.cpython-312.pyc
        |-- internal.py
|-- transforms/
   |-- __init__.py
   |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- _functional_pil.cpython-312.pyc
        |-- _functional_tensor.cpython-312.pyc
        |-- _functional_video.cpython-312.pyc
        -- _presets.cpython-312.pyc
        |-- ... (4 more files)
   |-- _functional_pil.py
   |-- _functional_tensor.py
    |-- _functional_video.py
   |-- _presets.py
   |-- ... (6 more files)
   |-- v2/
       |-- __init__.py
       |-- __pycache__/
           |-- __init__.cpython-312.pyc
            |-- _augment.cpython-312.pyc
            |-- auto augment.cpython-312.pyc
            |-- color.cpython-312.pyc
            |-- _container.cpython-312.pyc
            |-- ... (8 more files)
        |-- _augment.py
        |-- _auto_augment.py
        |-- _color.py
        |-- _container.py
        |-- ... (10 more files)
        |-- functional/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- _augment.cpython-312.pyc
                -- _color.cpython-312.pyc
                |-- _deprecated.cpython-312.pyc
                |-- _geometry.cpython-312.pyc
                |-- ... (5 more files)
            |-- _augment.py
            |-- _color.py
            |-- _deprecated.py
            |-- geometry.py
            |-- ... (6 more files)
-- tv_tensors/
   |-- __init__.py
   |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _bounding_boxes.cpython-312.pyc
```

```
-- _dataset_wrapper.cpython-312.pyc
            |-- _image.cpython-312.pyc
            |-- _mask.cpython-312.pyc
            |-- ... (3 more files)
        |-- _bounding_boxes.py
        |-- _dataset_wrapper.py
        |-- _image.py
        |-- _mask.py
        |-- ... (4 more files)
|-- torchvision-0.22.1.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- ... (1 more files)
|-- tqdm/
    |-- __init__.py
    |-- __main__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- __main__.cpython-312.pyc
        |-- _dist_ver.cpython-312.pyc
        |-- _main.cpython-312.pyc
        |-- _monitor.cpython-312.pyc
        |-- ... (18 more files)
    |-- _dist_ver.py
    |-- _main.py
    |-- _monitor.py
    |-- ... (22 more files)
    |-- contrib/
        |-- __init__.py
        |-- __pycache__/
            -- __init__.cpython-312.pyc
            |-- bells.cpython-312.pyc
            |-- concurrent.cpython-312.pyc
            |-- discord.cpython-312.pyc
            |-- itertools.cpython-312.pyc
            |-- ... (4 more files)
        |-- bells.py
        |-- concurrent.py
        |-- discord.py
        |-- itertools.py
        |-- ... (5 more files)
|-- tqdm-4.67.1.dist-info/
    -- INSTALLER
    -- LICENCE
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- ... (2 more files)
|-- typing_extensions-4.14.0.dist-info/
    -- INSTALLER
```

```
-- METADATA
    -- RECORD
    -- WHEEL
    -- licenses/
       -- LICENSE
|-- tzdata/
   |-- __init__.py
    -- __pycache__/
       -- __init__.cpython-312.pyc
    |-- zoneinfo/
        |-- Africa/
            |-- Abidjan
            |-- Accra
            |-- Addis_Ababa
            |-- Algiers
            |-- Asmara
            |-- ... (51 more files)
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
        |-- America/
            |-- Adak
            |-- Anchorage
            |-- Anguilla
            |-- Antigua
            |-- Araguaina
            |-- Argentina/
                |-- Buenos_Aires
                |-- Catamarca
                |-- ComodRivadavia
                |-- Cordoba
                |-- Jujuy
                |-- ... (10 more files)
                |-- __pycache__/
                   -- __init__.cpython-312.pyc
            |-- ... (144 more files)
            -- Indiana/
                |-- Indianapolis
                -- Knox
                |-- Marengo
                |-- Petersburg
                |-- Tell_City
                |-- ... (5 more files)
                |-- __pycache__/
                    |-- __init__.cpython-312.pyc
            -- Kentucky/
                |-- Louisville
                |-- Monticello
                |-- __init__.py
                |-- __pycache__/
                   -- __init__.cpython-312.pyc
            |-- North_Dakota/
                |-- Beulah
                |-- Center
```

```
|-- New_Salem
        |-- __init__.py
        |-- ___pycache___/
           -- __init__.cpython-312.pyc
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
|-- Antarctica/
    |-- Casey
    |-- Davis
    |-- DumontDUrville
    |-- Macquarie
    -- Mawson
    |-- ... (9 more files)
    -- <u>___</u>pycache___/
       -- __init__.cpython-312.pyc
|-- Arctic/
    |-- Longyearbyen
    |-- __init__.py
    |-- __pycache__/
       -- __init__.cpython-312.pyc
-- Asia/
   -- Aden
    |-- Almaty
    -- Amman
    |-- Anadyr
    |-- Aqtau
    |-- ... (96 more files)
    -- __pycache__/
        |-- __init__.cpython-312.pyc
|-- Atlantic/
   -- Azores
    -- Bermuda
    -- Canary
    -- Cape_Verde
    -- Faeroe
    |-- ... (9 more files)
    |-- __pycache__/
       -- __init__.cpython-312.pyc
-- Australia/
    -- ACT
    -- Adelaide
    |-- Brisbane
    |-- Broken_Hill
    |-- Canberra
    |-- ... (20 more files)
    |-- __pycache__/
       -- __init__.cpython-312.pyc
|-- Brazil/
   -- Acre
    -- DeNoronha
    |-- East
    |-- West
    |-- __init__.py
```

```
|-- __pycache__/
        |-- __init__.cpython-312.pyc
|-- CET
-- CST6CDT
-- Canada/
    |-- Atlantic
    |-- Central
    |-- Eastern
    |-- Mountain
    |-- Newfoundland
    |-- ... (5 more files)
    -- __pycache__/
       |-- __init__.cpython-312.pyc
-- Chile/
   |-- Continental
    |-- EasterIsland
    |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
-- Cuba
|-- EET
-- EST
|-- ... (64 more files)
|-- Etc/
    -- GMT
    |-- GMT+0
    |-- GMT+1
    -- GMT+10
    -- GMT+11
    |-- ... (32 more files)
    -- __pycache__/
        |-- __init__.cpython-312.pyc
|-- Europe/
   -- Amsterdam
    -- Andorra
    |-- Astrakhan
    -- Athens
    -- Belfast
    |-- ... (61 more files)
    |-- __pycache__/
       -- __init__.cpython-312.pyc
|-- Indian/
    |-- Antananarivo
    |-- Chagos
    |-- Christmas
    -- Cocos
    -- Comoro
    |-- ... (8 more files)
    -- __pycache__/
       |-- __init__.cpython-312.pyc
-- Mexico/
    -- BajaNorte
    |-- BajaSur
```

```
|-- General
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
        -- Pacific/
            |-- Apia
            |-- Auckland
            |-- Bougainville
            -- Chatham
            |-- Chuuk
            |-- ... (41 more files)
            -- __pycache__/
                |-- __init__.cpython-312.pyc
        |-- US/
           |-- Alaska
            |-- Aleutian
            |-- Arizona
            |-- Central
            |-- East-Indiana
            |-- ... (9 more files)
            |-- __pycache__/
               |-- __init__.cpython-312.pyc
        -- __pycache__/
           |-- __init__.cpython-312.pyc
    -- zones
|-- tzdata-2025.2.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- licenses/
       -- LICENSE
        |-- licenses/
           -- LICENSE_APACHE
    |-- top_level.txt
|-- ultralytics/
   |-- __init__.py
    |-- ___pycache___/
       |-- __init__.cpython-312.pyc
    |-- assets/
        |-- bus.jpg
        |-- zidane.jpg
    |-- cfg/
        -- __init__.py
        |-- __pycache__/
           |-- __init___.cpython-312.pyc
        -- datasets/
            |-- Argoverse.yaml
            |-- DOTAv1.5.yaml
            |-- DOTAv1.yaml
            |-- GlobalWheat2020.yaml
            |-- HomeObjects-3K.yaml
            |-- ... (29 more files)
```

```
|-- default.yaml
|-- models/
   |-- 11/
        |-- yolo11-cls-resnet18.yaml
        -- yolo11-cls.yaml
        |-- yolo11-obb.yaml
        -- yolo11-pose.yaml
        -- yolo11-seg.yaml
        |-- ... (3 more files)
   |-- 12/
       |-- yolo12-cls.yaml
        -- yolo12-obb.yaml
        -- yolo12-pose.yaml
        |-- yolo12-seg.yaml
        -- yolo12.yaml
   |-- rt-detr/
       |-- rtdetr-l.yaml
       |-- rtdetr-resnet101.yaml
        -- rtdetr-resnet50.yaml
       -- rtdetr-x.yaml
    |-- v10/
       |-- yolov10b.yaml
        |-- yolov101.yaml
        |-- yolov10m.yaml
        |-- yolov10n.yaml
        |-- yolov10s.yaml
        |-- ... (1 more files)
    |-- v3/
       |-- yolov3-spp.yaml
       |-- yolov3-tiny.yaml
       |-- yolov3.yaml
   |-- v5/
       |-- yolov5-p6.yaml
       |-- yolov5.yaml
   |-- v6/
       |-- yolov6.yaml
   |-- v8/
       -- yoloe-v8-seg.yaml
        -- yoloe-v8.yaml
        |-- yolov8-cls-resnet101.yaml
        |-- yolov8-cls-resnet50.yaml
        |-- yolov8-cls.yaml
        |-- ... (14 more files)
    |-- v9/
       |-- yolov9c-seg.yaml
        |-- yolov9c.yaml
        |-- yolov9e-seg.yaml
        |-- yolov9e.yaml
        |-- yolov9m.yaml
        |-- ... (2 more files)
-- trackers/
   |-- botsort.yaml
    |-- bytetrack.yaml
```

```
|-- data/
    |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- annotator.cpython-312.pyc
        |-- augment.cpython-312.pyc
        |-- base.cpython-312.pyc
        |-- build.cpython-312.pyc
        |-- ... (6 more files)
    |-- annotator.py
    -- augment.py
    -- base.py
    |-- build.py
    |-- ... (8 more files)
    |-- scripts/
        |-- download_weights.sh
        -- get_coco.sh
        |-- get_coco128.sh
        |-- get_imagenet.sh
|-- engine/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- exporter.cpython-312.pyc
        |-- model.cpython-312.pyc
        |-- predictor.cpython-312.pyc
        |-- results.cpython-312.pyc
        |-- ... (3 more files)
    |-- exporter.py
    |-- model.py
    |-- predictor.py
    |-- results.py
    |-- ... (4 more files)
|-- hub/
   -- __init__.py
    |-- __pycache__/
        -- __init__.cpython-312.pyc
        |-- auth.cpython-312.pyc
        |-- session.cpython-312.pyc
        |-- utils.cpython-312.pyc
    |-- auth.py
    |-- google/
        |-- __init__.py
        |-- __pycache__/
           |-- __init__.cpython-312.pyc
    -- session.py
   |-- utils.py
|-- models/
   |-- __init__.py
    |-- __pycache__/
       |-- __init__.cpython-312.pyc
    -- fastsam/
        |-- __init__.py
```

```
|-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- model.cpython-312.pyc
        |-- predict.cpython-312.pyc
        |-- utils.cpython-312.pyc
        |-- val.cpython-312.pyc
    |-- model.py
    |-- predict.py
    |-- utils.py
    |-- val.py
|-- nas/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- model.cpython-312.pyc
        |-- predict.cpython-312.pyc
        |-- val.cpython-312.pyc
    |-- model.py
    |-- predict.py
    |-- val.py
-- rtdetr/
    |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- model.cpython-312.pyc
        |-- predict.cpython-312.pyc
        |-- train.cpython-312.pyc
        |-- val.cpython-312.pyc
    |-- model.py
    |-- predict.py
    |-- train.py
    |-- val.py
|-- sam/
    |-- __init__.py
    |-- __pycache__/
        |-- __init___.cpython-312.pyc
        |-- amg.cpython-312.pyc
        |-- build.cpython-312.pyc
        |-- model.cpython-312.pyc
        |-- predict.cpython-312.pyc
    -- amg.py
    |-- build.py
    |-- model.py
    |-- modules/
        -- __init__.py
        |-- __pycache__/
            |-- init .cpython-312.pyc
            |-- blocks.cpython-312.pyc
            |-- decoders.cpython-312.pyc
            |-- encoders.cpython-312.pyc
            |-- memory_attention.cpython-312.pyc
            |-- ... (4 more files)
        |-- blocks.py
```

```
|-- decoders.py
        |-- encoders.py
        |-- memory_attention.py
        |-- ... (5 more files)
    -- predict.py
|-- utils/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- loss.cpython-312.pyc
        -- ops.cpython-312.pyc
    |-- loss.py
    -- ops.py
|-- yolo/
   |-- __init__.py
    |-- ___pycache___/
        |-- __init__.cpython-312.pyc
        |-- model.cpython-312.pyc
    |-- classify/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- predict.cpython-312.pyc
            |-- train.cpython-312.pyc
            |-- val.cpython-312.pyc
        |-- predict.py
        |-- train.py
        |-- val.py
    |-- detect/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- predict.cpython-312.pyc
            |-- train.cpython-312.pyc
            |-- val.cpython-312.pyc
        |-- predict.py
        |-- train.py
        |-- val.py
    |-- model.py
    |-- obb/
        |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- predict.cpython-312.pyc
            |-- train.cpython-312.pyc
            |-- val.cpython-312.pyc
        |-- predict.py
        |-- train.py
        |-- val.py
    |-- pose/
        |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
```

```
|-- predict.cpython-312.pyc
                |-- train.cpython-312.pyc
                |-- val.cpython-312.pyc
            |-- predict.py
            |-- train.py
            |-- val.py
        |-- segment/
            |-- __init__.py
            |-- __pycache__/
                -- __init__.cpython-312.pyc
                |-- predict.cpython-312.pyc
                |-- train.cpython-312.pyc
                |-- val.cpython-312.pyc
            |-- predict.py
            |-- train.py
            |-- val.py
        |-- world/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- train.cpython-312.pyc
                |-- train_world.cpython-312.pyc
            |-- train.py
            |-- train_world.py
        |-- yoloe/
           |-- __init__.py
            -- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- predict.cpython-312.pyc
                |-- train.cpython-312.pyc
                |-- train_seg.cpython-312.pyc
                |-- val.cpython-312.pyc
            |-- predict.py
            |-- train.py
            |-- train_seg.py
            |-- val.py
|-- nn/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        -- autobackend.cpython-312.pyc
        -- tasks.cpython-312.pyc
        |-- text_model.cpython-312.pyc
    |-- autobackend.py
    |-- modules/
        |-- __init__.py
        |-- pycache /
            |-- __init___.cpython-312.pyc
            |-- activation.cpython-312.pyc
            |-- block.cpython-312.pyc
            -- conv.cpython-312.pyc
            -- head.cpython-312.pyc
            |-- ... (2 more files)
```

```
|-- activation.py
        |-- block.py
        -- conv.py
        -- head.py
        |-- ... (3 more files)
    |-- tasks.py
   |-- text_model.py
|-- solutions/
   |-- __init__.py
    |-- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- ai_gym.cpython-312.pyc
        |-- analytics.cpython-312.pyc
        |-- config.cpython-312.pyc
        |-- distance_calculation.cpython-312.pyc
        |-- ... (15 more files)
    -- ai_gym.py
    |-- analytics.py
    |-- config.py
    |-- distance_calculation.py
    |-- ... (17 more files)
    -- templates/
        |-- similarity-search.html
-- trackers/
    |-- __init__.py
    |-- pycache /
        -- __init__.cpython-312.pyc
        |-- basetrack.cpython-312.pyc
        |-- bot_sort.cpython-312.pyc
        -- byte_tracker.cpython-312.pyc
        |-- track.cpython-312.pyc
    |-- basetrack.py
    |-- bot_sort.py
    |-- byte_tracker.py
    -- track.py
    |-- utils/
        |-- __init__.py
        -- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- gmc.cpython-312.pyc
            |-- kalman_filter.cpython-312.pyc
            |-- matching.cpython-312.pyc
        |-- gmc.py
        |-- kalman_filter.py
        |-- matching.py
|-- utils/
   |-- __init__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- autobatch.cpython-312.pyc
        |-- autodevice.cpython-312.pyc
        |-- benchmarks.cpython-312.pyc
        -- checks.cpython-312.pyc
```

```
|-- ... (15 more files)
        |-- autobatch.py
        |-- autodevice.py
        |-- benchmarks.py
        |-- callbacks/
            |-- __init__.py
            |-- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- base.cpython-312.pyc
                -- clearml.cpython-312.pyc
                -- comet.cpython-312.pyc
                |-- dvc.cpython-312.pyc
                |-- ... (6 more files)
            |-- base.py
            -- clearml.py
            -- comet.py
            |-- dvc.py
            |-- ... (7 more files)
        -- checks.py
        |-- ... (17 more files)
|-- ultralytics-8.3.151.dist-info/
    -- INSTALLER
    -- METADATA
    -- RECORD
    |-- REQUESTED
    -- WHEEL
    |-- ... (3 more files)
    |-- licenses/
        -- LICENSE
|-- ultralytics_thop-2.0.14.dist-info/
    -- INSTALLER
    -- LICENSE
    -- METADATA
    -- RECORD
    -- WHEEL
    |-- ... (1 more files)
|-- urllib3/
    |-- __init__.py
    -- __pycache__/
        |-- __init__.cpython-312.pyc
        |-- _base_connection.cpython-312.pyc
        |-- _collections.cpython-312.pyc
        |-- _request_methods.cpython-312.pyc
        |-- _version.cpython-312.pyc
        |-- ... (7 more files)
    |-- _base_connection.py
    |-- collections.py
    -- _request_methods.py
    |-- _version.py
    |-- ... (12 more files)
    |-- contrib/
        |-- __init__.py
        |-- __pycache__/
```

```
-- __init__.cpython-312.pyc
            |-- pyopenssl.cpython-312.pyc
            |-- socks.cpython-312.pyc
        |-- emscripten/
            |-- __init__.py
            -- __pycache__/
                |-- __init__.cpython-312.pyc
                |-- connection.cpython-312.pyc
                |-- fetch.cpython-312.pyc
                |-- request.cpython-312.pyc
                -- response.cpython-312.pyc
            |-- connection.py
            |-- emscripten_fetch_worker.js
            |-- fetch.py
            -- request.py
            |-- ... (2 more files)
        |-- pyopenssl.py
       -- socks.py
   |-- http2/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- connection.cpython-312.pyc
            |-- probe.cpython-312.pyc
        |-- connection.py
       -- probe.py
   |-- util/
       |-- __init__.py
        |-- __pycache__/
            |-- __init__.cpython-312.pyc
            |-- connection.cpython-312.pyc
            -- proxy.cpython-312.pyc
            |-- request.cpython-312.pyc
            -- response.cpython-312.pyc
            |-- ... (8 more files)
        |-- connection.py
        -- proxy.py
        -- request.py
        -- response.py
        |-- ... (9 more files)
|-- urllib3-2.4.0.dist-info/
   -- INSTALLER
    -- METADATA
   |-- RECORD
    -- WHEEL
    -- licenses/
       |-- LICENSE.txt
|-- yaml/
   |-- __init__.py
   |-- __pycache__/
       |-- __init__.cpython-312.pyc
        |-- composer.cpython-312.pyc
        |-- constructor.cpython-312.pyc
```

```
|-- cyaml.cpython-312.pyc
                    |-- dumper.cpython-312.pyc
                    |-- ... (12 more files)
                -- _yaml.cp312-win_amd64.pyd
                -- composer.py
                |-- constructor.py
                -- cyaml.py
                |-- ... (14 more files)
    |-- Scripts/
        |-- Activate.ps1
        -- activate
        |-- activate.bat
        |-- cpuinfo.exe
        |-- deactivate.bat
        |-- ... (21 more files)
    -- pyvenv.cfg
    -- share/
       |-- man/
            |-- man1/
                -- isympy.1
                |-- ttx.1
-- .vscode/
|-- Automate.py
|-- Detects_Drivelink_ColabTrained/
    -- content/
        |-- runs/
            |-- detect/
                |-- train/
                    |-- F1_curve.png
                    |-- PR_curve.png
                    |-- P_curve.png
                    |-- R_curve.png
                    -- args.yaml
                    |-- ... (16 more files)
                    |-- weights/
                        |-- best.pt
                        |-- last.pt
|-- Drive link Dataset/
   |-- .gitignore
   |-- OutputBox.py
    |-- Result from drive link/
        |-- F1_curve.png
        |-- PR_curve.png
        -- P_curve.png
        |-- R_curve.png
        -- args.yaml
        |-- ... (17 more files)
        |-- weights/
           -- best.pt
            |-- last.pt
    |-- annotated_images_with_best.pt_file/
        |-- predictions/
            -- 02fd0af7-51ab46bb-c13_jpg.rf.f9ce052f4bba061e460bdbf1178fce4f.jpg
```

```
-- 11668_2014_9832_Fig2_HTML_jpg.rf.e8cb247e67cc0319b122e91e666d1d80.jpg
       -- laa4b44c-d01b8a11-Hot-crack_jpg.rf.7055544cd68521a4b9af1a1ab28597e5.jpg
        -- 20220608_112217_jpg.rf.b19f0c3ead193e4043c1934e2fe351a2.jpg
       -- 280762807_311425284525653_2090801215891852066_n_png_jpg.rf.5a8fa0818d7bf7ec906
       |-- ... (201 more files)
       |-- labels/
           -- 11668_2014_9832_Fig2_HTML_jpg.rf.e8cb247e67cc0319b122e91e666d1d80.txt
            -- laa4b44c-d01b8a11-Hot-crack_jpg.rf.7055544cd6852la4b9af1alab28597e5.txt
           -- 280762807_311425284525653_2090801215891852066_n_png_jpg.rf.5a8fa0818d7bf7e
            -- 295992d6-f617b725-c1_png_jpg.rf.4bb27478436da782f3d8f52226cfc1e3.txt
           -- 4a05306b-ca866elf-c12_jpg.rf.7355d4af9e5e6cebcacfbc4cb970fa46.txt
            |-- ... (168 more files)
   |-- train_images_output/
       |-- predictions/
           -- 04ff146c-13216e9b-c11_jpg.rf.04f47b4e754daa993d6ea26a6a25973d.jpg
            -- 04ff146c-13216e9b-c11_jpg.rf.1c2838a0b93b114cde542982fa28db61.jpg
           -- 04ff146c-13216e9b-c11_jpg.rf.2fefb7c0ae9a39785de0ed7b093cd764.jpg
           -- 04ff146c-13216e9b-c11_jpg.rf.3380f0b7f6783c0c88fa14041b4e7d56.jpg
           -- 04ff146c-13216e9b-c11_jpg.rf.346d483fba8cb2cd338202aa5dfa1383.jpg
            |-- ... (5636 more files)
           -- labels/
               -- 04ff146c-13216e9b-c11_jpg.rf.1c2838a0b93b114cde542982fa28db61.txt
               |-- 04ff146c-13216e9b-c11_jpg.rf.3a07fa94fbd912bd2b780ac0d5e9c84a.txt
               -- 04ff146c-13216e9b-c11_jpg.rf.6b721cc0f15e445e065386f78d88984b.txt
               -- 04ff146c-13216e9b-c11_jpg.rf.9da89c6eb25e663a890fd5d08a05bc6c.txt
               -- 04ff146c-13216e9b-c11 jpq.rf.a60e8c1bd9912ea7b193170b2919e9e1.txt
               |-- ... (3798 more files)
|-- annotated_images_without_best.pt file/
    -- 02fd0af7-51ab46bb-c13_jpg.rf.f9ce052f4bba061e460bdbf1178fce4f.jpg
   -- 11668_2014_9832_Fig2_HTML_jpg.rf.e8cb247e67cc0319b122e91e666d1d80.jpg
   -- laa4b44c-d01b8a11-Hot-crack_jpg.rf.7055544cd6852la4b9af1alab28597e5.jpg
   -- 20220608_112217_jpg.rf.b19f0c3ead193e4043c1934e2fe351a2.jpg
    -- 280762807_311425284525653_2090801215891852066_n_png_jpg.rf.5a8fa0818d7bf7ec906e3c8
   |-- ... (200 more files)
|-- auto_label.py
|-- best.pt
|-- driveLink.yaml
-- test/
   |-- images/
        -- 02fd0af7-51ab46bb-c13_jpg.rf.f9ce052f4bba061e460bdbf1178fce4f.jpg
       -- 11668_2014_9832_Fig2_HTML_jpg.rf.e8cb247e67cc0319b122e91e666d1d80.jpg
       -- laa4b44c-d01b8a11-Hot-crack_jpg.rf.7055544cd6852la4b9afla1ab28597e5.jpg
        -- 20220608_112217_jpg.rf.b19f0c3ead193e4043c1934e2fe351a2.jpg
        -- 280762807_311425284525653_2090801215891852066_n_png_jpg.rf.5a8fa0818d7bf7ec906
       |-- ... (200 more files)
   -- labels/
       -- 02fd0af7-51ab46bb-c13 jpq.rf.f9ce052f4bba061e460bdbf1178fce4f.txt
        -- 11668_2014_9832_Fig2_HTML_jpg.rf.e8cb247e67cc0319b122e91e666d1d80.txt
       -- laa4b44c-d01b8a11-Hot-crack_jpg.rf.7055544cd6852la4b9afla1ab28597e5.txt
        -- 20220608_112217_jpg.rf.b19f0c3ead193e4043c1934e2fe351a2.txt
        -- 280762807_311425284525653_2090801215891852066_n_png_jpg.rf.5a8fa0818d7bf7ec906
        |-- ... (200 more files)
   |-- labels.cache
```

```
|-- images/
            -- 04ff146c-13216e9b-c11_jpg.rf.04f47b4e754daa993d6ea26a6a25973d.jpg
            -- 04ff146c-13216e9b-c11_jpg.rf.1c2838a0b93b114cde542982fa28db61.jpg
            -- 04ff146c-13216e9b-c11_jpg.rf.2fefb7c0ae9a39785de0ed7b093cd764.jpg
            -- 04ff146c-13216e9b-c11 jpg.rf.3380f0b7f6783c0c88fa14041b4e7d56.jpg
            -- 04ff146c-13216e9b-c11_jpg.rf.346d483fba8cb2cd338202aa5dfa1383.jpg
            |-- ... (5639 more files)
        -- labels/
            -- 04ff146c-13216e9b-c11_jpg.rf.1c2838a0b93b114cde542982fa28db61.txt
            -- 04ff146c-13216e9b-c11_jpg.rf.3a07fa94fbd912bd2b780ac0d5e9c84a.txt
            -- 04ff146c-13216e9b-c11_jpg.rf.6b721cc0f15e445e065386f78d88984b.txt
            -- 04ff146c-13216e9b-c11_jpg.rf.9da89c6eb25e663a890fd5d08a05bc6c.txt
            -- 04ff146c-13216e9b-c11_jpg.rf.a60e8c1bd9912ea7b193170b2919e9e1.txt
            |-- ... (3798 more files)
        |-- labels.cache
|-- Drive_Dataset_Annotated/
    |-- README.dataset.txt
    |-- README.roboflow.txt
    -- data.yaml
    |-- train/
       |-- images/
            -- 04ff146c-13216e9b-c11_jpg.rf.07a1259bf56b5fe920d9d3b8f37240e9.jpg
            -- 04ff146c-13216e9b-c11_jpg.rf.0e7d1af02c460b5076cdff1250c08b91.jpg
            -- 04ff146c-13216e9b-c11_jpg.rf.180593fe419abbe82b84ead9b2f077bf.jpg
            -- 04ff146c-13216e9b-c11 jpq.rf.1953be29e0ab964595be9043e9166c4c.jpq
            |-- 04ff146c-13216e9b-c11 jpg.rf.laccee6a9ce0542f783ddd6f0f07876b.jpg
            |-- ... (757 more files)
       |-- labels/
            -- 04ff146c-13216e9b-c11_jpg.rf.07a1259bf56b5fe920d9d3b8f37240e9.txt
            -- 04ff146c-13216e9b-c11_jpg.rf.0e7d1af02c460b5076cdff1250c08b91.txt
            -- 04ff146c-13216e9b-c11_jpg.rf.180593fe419abbe82b84ead9b2f077bf.txt
            -- 04ff146c-13216e9b-c11_jpg.rf.1953be29e0ab964595be9043e9166c4c.txt
            -- 04ff146c-13216e9b-c11_jpg.rf.laccee6a9ce0542f783ddd6f0f07876b.txt
            |-- ... (757 more files)
|-- Github Dataset/
    |-- GithubDataset.yaml
    |-- Images_Github_Dataset/
        |-- images/
            |-- train/
                |-- 25_100.jpg
                |-- 25_103.jpg
                |-- 25_105.jpg
                |-- 25_108.jpg
                -- 25_109.jpg
                |-- ... (75 more files)
            |-- val/
                |-- 25_106.jpg
                |-- 25_107.jpg
                |-- 25_12.jpg
                |-- 25_123.jpg
                -- 25_125.jpg
                |-- ... (15 more files)
```

|-- train/

```
|-- labels/
            |-- 25_100.json
            |-- 25_103.json
            |-- 25_105.json
            |-- 25_106.json
            |-- 25 107.json
            |-- ... (99 more files)
            |-- train/
                |-- 25_100.txt
                |-- 25_103.txt
                |-- 25_105.txt
                |-- 25_108.txt
                |-- 25 109.txt
                |-- ... (75 more files)
            |-- val/
                |-- 25_106.txt
                |-- 25_107.txt
                |-- 25_12.txt
                |-- 25_123.txt
                |-- 25_125.txt
                |-- ... (15 more files)
    |-- Result from Github Dataset/
        |-- From test dataset/
            |-- F1_curve.png
            |-- PR_curve.png
            |-- P curve.png
            |-- R_curve.png
            -- args.yaml
            |-- ... (13 more files)
            |-- weights/
                |-- best.pt
                |-- last.pt
|-- Github_dataset_kfold.ipynb
|-- Github_defect.pt
-- Info.txt
|-- ... (33 more files)
|-- Pictures from welding/
   -- PXL_20250525_094459478.MP.jpg
    |-- PXL_20250525_094504283.jpg
    |-- PXL_20250525_094504969.jpg
    -- PXL_20250525_100532807.MP.jpg
    -- PXL_20250525_100534824.MP.jpg
    |-- ... (14 more files)
-- outputs/
    |-- aligned_plate.jpg
    -- labels/
       |-- aligned_plate.jpg
        |-- labels/
           |-- aligned_plate.txt
    -- labels10/
        |-- labels/
        |-- weld_seam.jpg
    -- labels11/
```

```
|-- labels/
        |-- weld_seam.txt
    |-- weld_seam.jpg
|-- labels12/
    -- labels/
       |-- weld_seam.txt
   |-- weld_seam.jpg
|-- labels13/
   |-- labels/
        |-- weld_seam.txt
   |-- weld_seam.jpg
-- labels14/
   |-- labels/
       |-- weld_seam.txt
   -- weld_seam.jpg
|-- labels15/
   |-- labels/
       |-- weld_seam.txt
   |-- weld_seam.jpg
-- labels16/
   |-- labels/
       |-- weld_seam.txt
    |-- weld_seam.jpg
-- labels17/
   |-- labels/
       |-- weld_seam.txt
   |-- weld_seam.jpg
-- labels18/
   |-- labels/
       -- weld_seam.txt
    |-- weld_seam.jpg
-- labels19/
   |-- labels/
       -- weld_seam.txt
   |-- weld_seam.jpg
-- labels2/
   |-- aligned_plate.jpg
    -- labels/
       |-- aligned_plate.txt
|-- labels20/
    -- labels/
       |-- weld_seam.txt
    |-- weld_seam.jpg
|-- labels21/
   |-- labels/
   |-- weld_seam.jpg
-- labels22/
    -- labels/
       -- weld_seam.txt
   |-- weld_seam.jpg
|-- labels23/
   |-- labels/
        |-- weld_seam.txt
```

```
|-- weld_seam.jpg
|-- labels24/
   -- labels/
       |-- weld_seam.txt
    |-- weld_seam.jpg
-- labels25/
   |-- labels/
        |-- weld_seam.txt
    |-- weld_seam.jpg
|-- labels26/
   -- labels/
        |-- weld_seam.txt
    |-- weld_seam.jpg
-- labels27/
   |-- labels/
        |-- weld_seam.txt
   |-- weld_seam.jpg
-- labels28/
   |-- labels/
       |-- weld_seam.txt
    |-- weld_seam.jpg
-- labels29/
   |-- labels/
       |-- weld_seam.txt
    |-- weld_seam.jpg
-- labels3/
   |-- aligned_plate.jpg
    -- labels/
        |-- aligned_plate.txt
-- labels30/
   |-- labels/
        |-- weld_seam.txt
    |-- weld_seam.jpg
-- labels4/
   -- aligned_plate.jpg
    -- labels/
        |-- aligned_plate.txt
-- labels5/
   |-- aligned_plate.jpg
    |-- labels/
        |-- aligned_plate.txt
|-- labels6/
    |-- aligned_plate.jpg
    |-- labels/
       -- aligned_plate.txt
-- labels7/
   |-- aligned_plate.jpg
    -- labels/
       |-- aligned_plate.txt
-- labels8/
   |-- labels/
        |-- weld_seam.txt
    -- weld_seam.jpg
```

```
-- labels9/
       |-- labels/
       |-- weld_seam.jpg
   -- weld_seam.jpg
-- results/
   |-- run1/
       |-- image0.jpg
       -- labels/
           |-- image0.txt
   |-- run12/
       |-- image0.jpg
       -- labels/
           |-- image0.txt
   -- run13/
       |-- image0.jpg
       -- labels/
           |-- image0.txt
   |-- run14/
       |-- image0.jpg
       -- labels/
           |-- image0.txt
   -- run15/
       -- image0.jpg
       -- labels/
           |-- image0.txt
```