```
|-- .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/
            |-- 8b4774f3ffa27e73717032bde42902cff261d0
            -- a4a498702c2edd155e2cf14ba55671b0bae6a2
       I-- 07/
```

```
-- 051c080984a5585334b97b7afc3ca318ad32dc
    |-- 49a453ddc219ee865441e37c0ad4148e93487a
    |-- 8455788a2faf44146bcd64a9a6fd0ce08675a1
    |-- e69fca336cc2be6c4f49570c4ddfbd8847139b
|-- 08/
    |-- lab16331c51af9f0ea2ce1a8e30419cb097bdc
    -- 28fed332b8d1dfe7505cca791c56bf02ddf5e8
    -- 3445f3511f9861eb6bef1c1783f19ad1a6e754
|-- 09/
    |-- 2c63e4300f95c6d9abcfcc45516823054d1d77
    -- 62dbf75242b637b470d35a1155ad77d9cbc857
    -- c9e2e2d791b88c533029e6cfd2c497ec67bc3f
l-- 0a/
    -- 17059dc66bbc941d5a88233d676f1d36ae9d3f
-- 0b/
    |-- 13e1fcf23e5537c69deba07afb8b175a5aca6e
    |-- 4ee2f6c6d9baa051beb9f1639f4cecc7baf28c
|-- 0c/
    |-- 375fff30122fb1e8fa99b7b7cf43eff6afc881
    -- 6ef55616bab00e448c4fdbf959511d2bf0ba14
    -- 779271754ea440ebc4be06ca6e677b7ff32be4
    -- fd48f41c38b433d10112f07a36c564fb3bbc3b
|-- 0d/
    -- 2131879db5fa7a483cb0886fc5e0f77627f4c1
    -- b4ca4b4d25d68a4497220353592645ca4f71bf
|-- 0e/
    -- 00ebb105e98b717f172add56293506d0a45fe3
    -- 4321abffed62ffa2f86eff6eec387cec5ef947
    |-- 596e4140c1f8d8077eda13fcbbb670105885a9
    |-- dc1c80b708a578f5a54f0a75483a95e9a13b30
    -- ed295f31f94a407fb5dec37032af544bb03231
|-- Of/
    -- eecff63762fc3d5ade801254a84ab87656a221
    -- fc28aea6a8586eaf8d4f897df35b4ca1263e72
|-- 10/
    |-- 118aa7fa98e8b8409ca9f8d2ce2b5803a42c97
    -- b99a5b0677c56ee8fb630b6cd932db9aa09f78
    -- c84295f389c335e05bd8ba24407f509bb3e410
    -- ff67eabf1f85e49addfbe3829091f6adec2943
|-- 11/
    |-- 2d372e72a687a51a9450b87c26fd3e8182e87f
    |-- 56de8ee28ec765fa49b9f88225177d0b48c30d
    -- a14cdc9f10aaffe5cfe1cc2f88447fa86d82af
|-- 12/
    -- 1b9742f9a024114f7c57a4afb9c7b8fc7ee92d
    -- 8ae82fa89a7ce84dcd9cbc5edaeaecb75a2518
    -- aeb97725dbf57ba3bf22937c14b7f1c19337a0
    -- bf4d150b28f7e01c8235387df5e14b1b780d11
|-- 13/
    |-- 25064fb15f81258d966ad6aa58e575aae4113a
|-- 14/
    -- 0ef25bddb3f1679a607ab2e3cebdf82e19bea0
    |-- 28690172c75b70440cfa7d6b511326e6a8050b
```

```
-- 375a7b575a5c0185cda5fa85b248c6183b89a1
    |-- 9d6219c8ac29b515c1a70198d8c62db2086d06
    |-- df805ffaed15996e049f31f7dfa89e854b2999
    |-- ... (1 more files)
|-- 15/
    |-- 3829a6e80f4c6c7220cd539182761d7b1a61e6
    -- 72ba58079e10980a57bc5dcc9fa27653d8d349
    -- 8326841c148d23bef5732a35a5bfd95dec81a4
    |-- 94c247b6c74f5ee6c8aaab7e4e7c9ba75dba35
    -- a2a57e74b3894920dc5150f6c3c4b33ae24585
|-- 16/
    |-- 591cd11bae44c90f161710fe46cf7a2203ab35
    -- c381f7fb2c4d8220ad181c4b1ddb84ca01b157
|-- 17/
    -- bleaa5d3b2b360316eccc6fe5192a8736d56fd
    |-- fa5b6d7c80f92c8fa9df954c5e002222e43b60
l-- 18/
    -- 146a1a0abdd9a45629f551c660aa11615c4a70
    -- 17672384e0a532ab5c43cdab2b02900e66853b
    -- 651f71ed4852b25c07a0a363bb625868954ac9
|-- 19/
    -- 3d335d7d6bef55d9c61aa77f69c1bc45e3e3c2
|-- 1a/
    |-- 1895fdf360691bdafde40f1dde71fa0df72e73
    |-- 997f07505c410f18684044b3354a2eba7a7d90
-- 1b/
    |-- 632bffbc20bf5fc8a2d227a6d6b08a5dd8226e
    -- 697fbfc50054d320bc4d75547adc253a232cb4
    |-- bb05aa4bbea4566d771858355bf227b3f219b8
    -- f76a303796480b02e172d041a25c9e0838b91a
|-- 1c/
    -- 9b107a2d78b3892dae8312e1f063c26ab0e126
I-- 1d/
    -- 1553673cfae57040a164c3a411ed0fc7fd9af3
    |-- 9d9585afaf91bd0aa951d41587524a6c063bb0
    -- a6311fe69a7790237f393a922b374496691b31
    |-- bbe91fede18f88309faa48a4a8ee1ed6205a58
    -- e6a8c95e46db25bff871d8f001b04088ee5922
|-- 1e/
    |-- 5d144338d80b7b86019e038a9d6ddd8e5db546
|-- 1f/
    |-- 4004999dc97887d448a7ad43a88960c36709fa
|-- 20/
    |-- 153e8503971eca9e860594d1506166259ca928
    -- 513779c99145751462c2fe0e548f0a4869e991
    -- 99827fd96f7f38562cad18fe8663a3c9b91d95
    -- f1b82be7655f2b39de5438dc3d048da70a0d40
    |-- fbc668cc03f1f44792a2acd37fa6e6fbedeeba
|-- 21/
    |-- a6f8589ae71e1e381a553d0f0210e86abb0ea3
    |-- c057287af72c174e29d819a26fd8f8c5c14c34
|-- 22/
    |-- 5c835a926cd4b3f2fc8a290aebb88e9fa00386
```

```
-- 8e0e6ff376b0501ad5a8579839442c1289a96c
   -- dee924847d606de052fedcd5702b70fe4f9599
I-- 23/
   -- bf88178949ca05893567c4a9c6d0cc23079938
|-- 24/
    |-- 328becf5441f3fc066811136b7af2d0ec6e211
    -- 5169b83eb8df18bd0a11b6b6c78831c80718a9
    -- 5e50274fe307a55a4945d408a88c1ecfa38a43
    -- 79a6d4c21433b147e3fe2b7676452d76c715b2
    |-- 80fc09d4f6fd526b23e134cebbbf1fa983b7c5
   |-- ... (4 more files)
|-- 25/
   |-- 519a866b3050ea81717e2343f92c6b0a277fd1
l-- 26/
   -- 4bef0224eb7e1619efc5a80fb7a6ccc9af1c1a
|-- 27/
   -- 5fcb5d2a055ec4c0cfc117e1df3dda7c09007c
|-- 28/
   |-- 27a49e9bc8521a6a1df01d45c195fb7e7116a6
    |-- 3cf68140c80da28a6c40571f563abcc9a38f7d
    |-- 720f02a1a66aff0c89bd58312fad5a5a6fd00f
    |-- 814a54c36a2cdfb597162f9a7b7099b855d4f5
   -- cae798fe9da8f28f8b0782e29def7cc7fdba7b
|-- 29/
    |-- a4ff7a2df774e1ec2382cd892833790028ceef
    -- e3a2f4d7d1ca63fed92c55cf8e8350aad1f1b2
|-- 2a/
    -- 0b15ac510d3e290e4d167f62719ed60725aebc
    -- 51077b3dbfaa06f5bebe58a14bf31856997931
    |-- 700b4b0d5c2c5b6b0530f49d9b930b9ae16688
|-- 2b/
   |-- 5869956c1b6f2a5a187a52c5ea29f9261bdd01
|-- 2c/
   |-- 24970cfe5b81fcd46c86250714388cfcd79a0c
    -- 3cc8bef19e93107a42fcb6b8c74cd8bc385ac2
|-- 2d/
   -- 2303ca5204edf30aebf8bb1b517f0dc1040493
   -- 3d9df0298c2c31b8517449ea58fd2b5688dbd5
    -- 586fc6726bb9abfe9a169873ee931c587a296c
    -- a8a0ee0ea704dafc29740aef7bb3f3945b5ea1
|-- 2e/
   |-- f27d4eaead863931e9e9a4fdf6381a10df4622
|-- 2f/
    |-- 9d3aced5690d7a49e8bd35ea9445fce75d1922
    -- cb4962e6a5762103438f1e8e5ab2731966df8f
|-- 30/
    -- b8991f9f3e008ac834ee1b4d59cdc11572e3ef
    -- c5b9ab2bc8bcc2a90b5bc2d3fd6681cbee268f
    -- c729c012d270e7246481d544aa30ea51d86c76
|-- 31/
    -- c8160fdf4cc3276018938273a8a2d9a28cbfc3
    -- efc32a421a8a15ad66e6072d924dc7a5693beb
|-- 32/
```

```
-- 2c4c684e6a168292a5cbb960b126c0e9094702
    -- d09c31589cabcb3962cd03875d74eaf373bda6
    -- eca08e142bdb0ec12073b426a1defd88333d9b
|-- 34/
    -- 54c44f8fa6e838ef963482e5d8e355f8c1a7ac
    |-- 862144bbc5abd76d8cc41fb93612806d870994
|-- 35/
    -- 4c3ab3ebf5cb51698003f2a13bb083f61a2b5b
    -- f8b5ff86022265d9aa2ebc5bb6cc7a7786eff1
|-- 37/
    -- f059a4466cf920c24dbeec0b928e4df454b16d
|-- 38/
    -- 221687e3f84cbbb1b3662028dc7b0be9ddbfca
    -- 5e7bf19cc2b08606ae5ef1f2dd899b71c728ec
    -- a0a11e58186486eaae8dd5d721cf6b851b6400
|-- 39/
    -- 3eac57a680d8916c2747b5c437aa6d67fd37f4
    -- 8092e663f4c9ec459ded1633240d91d8544e90
|-- 3b/
    |-- 6eec3ffa6bfd808e6d8efe5b50920b8580af6b
    -- bf8c2e3e39e381fdaf785de169d11ceadb54e9
|-- 3c/
    |-- 14df7f76cd58793696456a48ef57444b806ceb
|--3d/
    -- 6c55eed5af41fcc166f63115172761d7c9b11a
    -- 7ca0c46d4f0942eb64f663b8d5f3ea1d09a77e
    -- de31f7e1bb6e92ea50843995522780a99e6519
|-- 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
|-- 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
    -- f7c445080240d047bd6a5fcdf00dfa0ff401b1
```

```
|-- 54/
    |-- 0a9caf1f94d43dad3f4a8196f4f55c055feff0
    -- 3fc15dbbc9d120340cf30b1b01df7a28384762
    -- c6ac95a436529c9df32d48cba32d1a7ef9429f
    -- fa0ba5a4d733bd143dab23f8014ce8a4dd47db
|-- 55/
    -- 0909a16e8cae6da57516ab2280dd1380acaed1
    -- 66a7afcbd7f26ed8731d26248bc2e053b07fa8
    -- f782a47d29c0f1d3c51724b7aa14e971ded9c4
|-- 56/
    -- 2519eb77e571d1bce03bdbd5fdeb4ea98e6312
    -- ad1520e80a8a26dc961d25ababe1f8ad2840c5
|-- 57/
    -- 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
    |-- 23e5b2a451da3e0a6cc41f5efa56804a1ded03
    -- 50a7f1650a96fc6bca906874c631f7f54caabf
|-- 63/
    |-- 93fa779c1f5a9a49b382e005d1a7a89fbb1f54
    -- a64c094321298c7b1cfef29bd81f1084b73dcb
    -- b2bdd347af8c3afd9cb07bce7d2a4eb40ac95f
    -- ce3d8f0be66095d5e4be1300be05067bdb0a77
    -- e2d74824bf3d4f2463709a2d2ef036280d702c
|-- 64/
    -- 38ca62d7c1c728927a049e4fad0cf672ba0de0
    |-- 6878fbe83d833d4ba1737b2f5b855de1932ee6
    -- e5150795885525981e5e2e20a78c2674cdfee0
|-- 65/
    -- 9d63b9f23f7d3128745eac418593f8ed03e1f4
    -- b72480b7ea3a3eeb16d7e4a38e00e429ba0feb
    -- c5eec5ddc6586c23c75c54dcfaa25d1066d02b
|-- 66/
    |-- beacb4746a13487154571cf936e490b16f2326
|-- 67/
    -- 07b47c80fd2ad0f337e5f50a3fc82117e79754
    -- 4528b182cecd1e0154a602bff3d310feaafb56
    -- a7ef6ddc7fbd6509c1191998a255cf1b58aaaf
|-- 68/
    |-- 08886ae40ecccab8cfbb5b8e63955b04845bb8
    -- 7a1bcf7123c65c95d42dacdfd0f357547f7877
    -- a00957476975d6a97e5ca25d2e5adc80b74f08
    |-- dda6e48b2571b9a9e911a4410126e8414d730b
|-- 69/
    -- 518709bc2cda42788554af7c7b09e7af3a292c
    |-- 882563906b40e7ce595c37edc08998e1586567
    |-- 938d522fa476d7f3855a63e77d4c6a0173c0a0
|-- 6b/
    -- 7fa43ddbf4899fd35882687caad0a7f1f2464b
    -- b4adecddc5fb3a41b4437a23255e61f848b25b
    |-- f81a05637789647ae197cc60e31f4cc064cd76
|-- 6c/
    |-- 8e5140be66838181ca830cdbc1eb83d7071718
    -- c88a3872e695ee3b37de0da976e94077a30c34
I-- 6d/
    -- bd7ea527ba55341d2c5f09250bee2066c7f646
    -- d36909ace45277e60aed7f92ee4c9d99c58ac8
|-- 6e/
    |-- 00a9c8d8e2e4779f9d8508470e0a57681c53ee
    |-- 71081d0d974e45dea8e77ca160fafe0efd7534
    |-- 8bf80147983f5c4ec48028898c2d237bdd4464
|-- 6f/
    -- 1e3bab2b1eca41db2c620609419909adb09a52
    |-- 8f8485fcd456e926fcd936247935f79019858b
```

```
|-- 70/
    -- 193c7e603fc039cff63742c1bedc7a435660f4
    |-- 691e5d7d7f08178582da6b115e6acca0bce9c0
    -- c5a93a4bc4cd5a8a198bdc000a25eb560a8107
    -- ef6936b0549d5675fbb5ed0f058f674ac6086c
|-- 71/
    -- 03caf70eb976f911d5eab320131aabb4756fb2
    -- 20d6348c83b1b8efa993ad8bf2aafffd4536c5
    -- 54d00912e61014a0e3b7b1fe3440e8f89b5c8f
    |-- 825b1cf3dd04392a0b5929b4ea9f4f8401aaab
|-- 72/
    |-- 5025812d42e503865143d7a1ecb22647e839c7
    |-- 505bcb51aea8287e710dbfcd665ea16c7a11fa
    -- ec935f405444df6a78a4d90112b9b39bffce5e
|-- 73/
    |-- 1e8e0a1bca62b099807eb76d76c82e3822fde2
    -- a3e87357209a280ba02eac684bb684c46a4ac4
    -- a8306e6846aa4e78ef9007add3f7a29b20c983
|-- 74/
    -- 027ec96db019fe4a1493817172f69682f5a782
    |-- 10d608e71fe405cf9b86f51ff3e09659614026
    -- 67b8a62ab8aeace7f013496b63e45c70534355
    -- ec16c6626640e41abd72e6289965f215f64dd5
|-- 75/
    -- 55456676d4b5e09a54d4e37455014a1e0ea829
    -- ed804c00f9cff0944da59318729590b96edf79
|-- 76/
    -- 1f47b89f751cfb558ff9596b5550b6030eaf9e
|-- 77/
    |-- 9f49701e7bdb8452100d1a78a7e4f96dca935b
    -- a4e069b2422b58256cde814d9f0e43d5cf3968
    -- d9fb17138b987cc62a90d72b7b14bf57a17ad4
|-- 78/
    -- 56572fb7eeb49d25df1084a2236914ee129b11
    |-- 813cdfe6bdb6bf8d1cc7d8be3cd6b2677586bc
    -- c48bd0a727f8bc2d48fabfa3c2af69224a0171
|-- 79/
    |-- 8619505acbfd6375ab9d85f5d779d315fba2df
    -- 979d4d0df33b54f2b0ebd0b8a9c2e963a5724d
    -- bcce9a1267d85093465b4941a3183946d2dcac
    -- f73bf40722b192170ed62b454d20cbefc0877c
|-- 7a/
    -- 51622de43f023ada7e3b411df0f3106d36f7ad
    -- 66ed9b916313c9c3f22431b20cf6ce45325a06
    -- 8bc7a21b6fd59e2c7b1744b833577b25be5d60
-- 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
I-- 80/
    |-- 03ce19a53ef6412b75a5431e2cb79b56d4a63d
    |-- 38dcede5a5cc21373cd5a458187bbf72c7e916
|-- 81/
    |-- 3dd9749d274bee763fea99a24b4eb23b5c80e0
    -- a53a22321f2a8a57698b5790cf243aa14e4757
    |-- bb5f942d827a130a0260366eb8ac77c6accd26
|-- 82/
    -- f4bc7a018c01f2768b66b3541cf1362aeca58a
|-- 83/
    -- 0683de8a12f7fc6cb3915af5a688b33fb05cc4
    |-- 3db94f600e4c7f3fbefd01896797a60c8a5f8e
    -- 667230f76a5ee7b7684fed4c69eb305b030b3b
|-- 84/
    |-- 58f426836f740b4c01df39059c128bb36a9e76
    |-- 93c0236c920f217f1cc44b1937d5031396c4cf
    |-- c4854686da69a7518b0de4d77557d603163dc4
|-- 85/
    -- b233885cba6bf1f491c9f507698b7a41121ab6
|-- 86/
    |-- 05bcaedc61ab43b053f23ad7efb7d584559c07
    -- 33f69fb3699664aae599af00e7770f4b5d5285
    -- 5fac75ce390a34ca4efd16ba9dc0454fe0c837
    |-- d097eefab9796bc1185f036e0a96ff5a4c7eaa
    -- f66d66a47078b93882820a911520285f828efc
|-- 87/
    |-- 11855cfc0ce0992d536034f2f86b74e8a9f4a3
    |-- 917f8a1a7c02fc626433b04cad1c482deb78cd
    |-- b29719052620ba96996f55d6042910d7fa7495
    -- d14500a36b2fb8c2b2129782caeb3179b205d6
|-- 89/
    -- a5eb1717d06b6ea70d7a8e63ea1c3bcc00f5de
|-- 8a/
    -- 3ec34d4f0bf3b3f2b28b4d8ce73ca006fb1ab8
    -- f5f0032c8aee941a0cbeb0c03f24c94a2e5672
|-- 8b/
    -- 093748fab9542a086b12a880d35aa9ef521ba5
    -- 2f9cb0812b5fb944a9a3c0d13fb27c1fbbc679
```

```
-- e27c59020036f1501c9548e9679858ee6ab8b8
|-- 8c/
    |-- 25526ebc135f4a6ec1857e330dd789b88d0fc5
    -- bbd5980a99a29cedf5e4a12bbaeb7680d5009d
|-- 8d/
    |-- 95fd59780eda7574886570f33f7acaf2a81135
    -- b7098521aaefdbf2f794b39aaf4fad053c81f0
|-- 8f/
    |-- 202f5ed42463a14bb77d3da4c3487cb673605b
    -- b8f110aa8cceab2e2fa6fe2d95ffcae1f9f55a
|-- 90/
    -- 8521a1f4ac424c475dc293ffb17f3294d892bc
    |-- 8a0fadd8b4fd1134d50bba933144aa1943f9f0
l-- 91/
    -- 1b388f03c2626bf2907425376021cea017415b
    |-- 6b5fc01cd85e6f45f33d2ccdd683e664c329c0
    -- d50c9e4adc4ded5c02b73a83e150675f21a3d6
|-- 92/
    |-- 16bd54cfef763b9b87069f142d7c1f7be43b1d
    |-- 42ea0c46a03d28e16065c68728694e735e424b
    |-- 76c0ffffff49c2446b3a537dc1bcf0bb4bd06d1
    -- f9b261aa4dccda8f05a8011900fa556ee20b6c
|-- 93/
    -- 3701e5c2ce486b06a15d85d3d5ce01ea2d6642
    -- 59a9d7a13ac82df12d509ad6727263eaf198a0
    -- 8f32d015c19bfa20bc340f5158daa387a879f0
    -- ae5fbd4560b96ca55eaaf1c1c64f132a7cd3b3
    -- ca68363dd5fc329044bb6f4885560ddd17c583
    |-- ... (1 more files)
|-- 94/
    -- 98dfb985a2a422e29aa05645a7ea658a7fecc2
    -- c74fcbbffc68a47edc897214e8e3d5267209e6
l-- 95/
    -- cdd962b4249cd304fb4803e79c18f0ca496ccb
|-- 96/
    -- a329641eb0269472c8b597dbc9176fbf55584b
    -- f064924d9381494c30afc0a36f46bb29f9d386
|-- 97/
    -- 3ea082f5952d9286ae9f515ef95306804eaf46
    -- 55abc39d31f6313210e6db0fd9a8ac9fc9426a
    |-- 656eca00e4b3b898769242e4d19bfbfc059a5d
    -- a8b3022f2de70453e1c8488f3a92a530f52df5
|-- 98/
    |-- 7234a3c8d73e025f3714b741150f2abc6bb635
    -- e90afa2d526dc8c6277f5c6fd35a45a82dc9e2
    -- ef350fa72519aff948930854d2dc5d6692652b
|-- 99/
    -- ae0b0bea1847fca30d4e61ce61eab79a275196
|-- 9a/
    |-- 160382f83cfec0b7bcdc07d6355a31790fb9f9
    -- 9391f47373ac35cd59c28286e1c022a8f64d4d
    -- bafdcbe93f17a1ac95148ff822b31935365473
    |-- cdf1ce408437fd0b9c0a9af87632ea1889a11d
```

```
-- d6415dda288fab45d0742de5ff5cd92c33250e
    |-- ... (2 more files)
|-- 9b/
    -- 28a838c01fc26268b897e2c90586c0600e0adb
    -- c07c643779d0e99cef81aee74b15ce06a7828a
    |-- ff33aed72f6e90cce6212c1a50df9a79b5917d
|-- 9c/
    -- 5234043d70afbb9d04696391c652a6ab23e3a3
    |-- 54c54331dd7afc4fdfdcbcf0cf9f62b6c2139f
    |-- 8c7498fb8af82c0144d3c8a360f5b3c5a13d7a
|-- 9d/
    -- 4d9fe2b879a264b1e710426f381dd5c51e5b73
    -- e235d92f911c81edb63d229991163c2e58616e
l-- 9e/
   -- 24697db01d02f41870dd36b0db844bffb103b7
    |-- 25fed3128ec81359d876fe9ad331d86ba09cd4
    -- b837ac438589469944ba89793e0f1a8f22fe11
|-- 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
    |-- b5ec83bela260dd6aec665b657de6f2a556861
|-- 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
1 - - b3/
    -- 2ae5df0e610b32c25a3c2ea2184be570730e31
    |-- 5c72122afee3b0517b69ed665e009f166feccf
    |-- f2803cf7ebbff1d513972f741ff9ea057e228a
-- b4/
    -- 6c933fe91aca5f20502be98102aa12985da407
    -- b9e96b77441d3c0c1c77003599284f6b8c0ef8
    -- f613c632cbed4d95de8eced10f5f12f61e7900
|-- 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/
    -- 60f60d741f647fbfc25272069a520cb8734641
    |-- b31f8d8778bf853690c054851807f07981f944
|-- c2/
    |-- 3a22266fa0d60555eb34002656165d2a0fb5fe
    -- a512261ca21758c687c355e0f147e49abac3be
    -- ab48f2c18449c5a2eba23ebf55d545e24525f0
    -- 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
    -- 8d726830e63aa491df83937aa03e8dcabd481f
    |-- 95fc494ed4a42c63556d4e316710f23a9ce667
    -- bd2adf76aeee87dceac5b64456a75e622ddd58
    -- f86d5eb366d560e0ccb1c4e270cf9c79be9d41
|-- cf/
    |-- 095c9bd2e61440bb8d03ab93cd3bbec371ab4a
    |-- 134af1df641ed02844848b0dba8b478684ab54
|-- d0/
    |-- 59519f7823ecdf26132be68cc879d2324a80c2
    |-- 82ea2ccc8fb5d028fb10d10f77031f7f645ee9
    -- 843f7f65c39d1bf8f1b304acf3ef3a18d22077
|-- d1/
    -- 757db7aec5448df0d66cb43db2d86e81544fbc
    -- cd048a29d2168698e3cbab1fde3403c982b457
    -- cd3a6afd56a38cdf0ee34f374245067b4f3aac
    |-- dab4269c6ff46d0c1b3c7ad062221f7cf61a12
|-- d3/
    |-- 44a58d367f92926d31c65de6e770e1f045284c
    -- 4647cae050f712df7c5fa67c8bb02c30d51e0e
    -- d8729faf6c7a1a260a27845c9590ece197d95c
    -- e44d65c556bdb68978f0aa45452ba2abf5f793
|-- d4/
    -- adaae8af6b764120f0b4fa60c2e9708597fd76
I-- d5/
    -- 169f9f841d240fed048aba2df3a38d4c770caf
    |-- 25ff7c426d89898e3dd216c138f8b3c6a3f87c
    -- f58d977da5f30255e82eec447e4455b9ac802f
|-- d6/
    -- f665a2110ef99c6f5b6637e23673082dcff301
|--d7/
    -- 89e8eebeb9a1f1d0c9bb00eaff0a9b7d1e9ca0
    -- 92ff12c23023df59b4ae209b653676ded3e53d
    -- 98d9f0ec5d4d9adfb1e06c6430d497e299b43f
    -- c4b0c20c1c260d3d83efcbdebf24531495721f
    -- fdec966f4b9bdfcf160738e70ac3a92ac8415f
|-- d8/
    -- c1525cacac997a8e191711dc1e3109236aeb11
    -- dcc45705c812f3300049d29239b92789c49e9b
|-- da/
```

```
-- 201013fff235f15e7fd74a15060cdb99ee7461
    |-- 6701f8a762f2efebdacc5946be022d543471d7
    -- 723e3c25c794ef4561a2da2cc7d53b05475384
|-- db/
    -- 01fd70283899eedefeda801e65d01289a8773b
    |-- 34f4108595ceb4b8a5fe3d50e436419039432c
|-- dd/
    -- 27a1d75b678728d48ebd7c503b6c3f5d24269e
    |-- 7f341f456f10dd8a3bae8dd062a7d65de78f8c
    -- f6a80797c97fd0860bf345565c9f97cc8a4ea5
    -- fd6848fcae37fbf4c79c1b944b3fdbdc43ee56
|-- de/
    |-- 4b546499f63c9cff7b8453c878449e8aa6f38a
    -- bf4e5cc98bbb9accdd99576a1112a4ccdcfa68
|-- df/
    |-- 71288b802eb5afa90bf8b7f4c96b7ce55bb2e7
    |-- 7843698e92c9658a7a821e91484e9e9b32ccdd
-- e0/
    -- blad4db12b6c1920c14670aed4125d774d6fac
    |-- be99e769aeaec075917ce91ba69b08e75391d1
|-- e1/
    |-- 53da368c8e2833e753ad201081d2bd51a1b29a
    -- a8aef98d159749f7880575a31a573b25231938
|-- e2/
    |-- 1a1681f1b27f507ebf3c08194b7455cc0445ab
    |-- 39f3adafc40609e17b70c2eba9f9e6f32ebcdb
    -- d70d78389c293f00495c84e1853ddca2fbda70
    -- d8f9fa4259871bd4c0c51fd78d27f0f1bcc032
    -- ed53c60e08d25cd989a9f418bea6f96077b115
|--e3/|
    -- 528da2b829cc80e765d14baee1dc79976f05bf
    -- 9c79b7c3d7ed7b202b4f4e5fd139dff4c0d962
    -- c2d5e7beb08232eb62f0e44c0ea05b84e30f8f
|-- e4/
    |-- 19b0d758ee136556627a676a11fcc9dc5924a7
    |-- 42c4f63b63e25347bb0c789a05cef52489f139
|-- e5/
    -- 702085f0e40355fc75f65c8cd2e7230d181d59
    -- d2ffa92a0d7c265821b0489d567bc0be511305
    -- ec52473f56a44543aba60d997a753218d11c2c
-- e6/
    |-- 3e3505646abf69d5f4d6ae922c2ce29849f8cd
    -- 9de29bb2d1d6434b8b29ae775ad8c2e48c5391
    -- a2728171e51d00dc523ff104268849a1ddd9d2
    -- f9df1892415da571437b659e52eb6738e91961
|-- e7/
    -- 3cac8d2938cd686a9ef610451a20039c65be5a
    -- 6bb4188e1d4f40293bc5a67733490a40936bb2
    -- 7213a21d2b183a72875e393d490771fa5eab7d
    |-- c199eb8674eee9fa6e6f80eefa20e7438c8b9c
|-- e8/
    -- 242255c2f62ca25214a468ca2779f70e079ba3
    |-- 9ccf176c75206a40f3c565fb4da50173f6970d
```

```
-- cd4a0f299678156683cabae134ec1746da50c4
|-- e9/
    |-- 45da67cfa4dc41567e43b7613a725023760e5f
    -- 50e7af630c12fe2a95496be2738d78277a50f0
    |-- 850cf4c3c1b663bf4959a571017014e4af3d99
    -- aab99c995557eb9bc91e6b9381d90caccbe05f
|-- ea/
    -- 41a36d66203bc65b865f1c9f69695023907956
    -- 4a070a40a5e9a108ed72a7e5f5a900ef1010f5
    -- a5797faa9984e95ed5322997bb88709b2e65f5
    -- c214556c1004c4afef9e3f60d3c42c8eebc91b
|-- eb/
    -- cfbdc70b81ae7374e358143864c267b47fbad7
|-- ec/
    -- 0bb84c4b11f89a82dd6f8b5591b65ccd2a1dcb
    -- 3d34aa59f07cac306eeb3505cf65626fdf3a5c
    -- a523d98f31a92c37dcb7af6ff695e927fb99bc
|-- ed/
    |-- 34cc8c44bdfbf8afb4999d9bd89ca13b14fb86
I-- 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
|-- f6/
    |-- 3bd9696e1658d57e83dfa02fc78590c7cf9109
    |-- 7b6679f6843a928fa304f0407adf9dfcabd06a
    |-- 8061f51642989b7626da764ff036d9060e4193
|-- f7/
```

```
-- 17a11dba80f3d95f86edd23fe294a27c70181a
            -- 1c234cd63755c42db6c94fcf5285b505221e01
            -- 6dbf23ed2b271bb78990e82701a1f35ebc1c8f
           -- 87080343d909d375a779a45efb11bca97f3ac0
       |-- f8/
            |-- 5e4bde8f70895e3f92f4b7ff36a2a6345b1606
            -- fba9cb2dfbdbf48b87cb7ed4b5af25b8627d30
           -- ff493177e95ac17dfd7eb6a9582510002c525c
       |-- f9/
            -- 77cda6eeff791c167c295560204120a2fabb54
           -- fcbb903d5c1d548332c7dbee7b941b6d66d04f
            -- fe2c82983d6b145df529534fbfe1101cd574e6
       |-- fa/
            -- 62289157b9051ef357712a9fe45203e5ae82f6
            -- 7af9668ee330371b4914ca9b3aaed312faf629
            |-- ab5b1ff34eeeeba1365c9210b8a50c2a6f6d84
       |-- fb/
           |-- d1b910812c8c568bbb8121211b7d9585b0265b
       |-- fc/
           -- 16656120a9fc61ca7c8a1233c671ed03ebff2e
       |-- fd/
            -- 00b14619d0a00df57e0ec1325bf45355192d79
           |-- 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.qz
        |-- 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
|-- svqLib/
    |-- __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)
```

```
|-- 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
```

|-- macUtils.py

```
-- 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 qtk.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
        |-- gw1.gpickle.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.qz
    |-- 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
    |-- qml.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
    |-- _linalg.py
    |-- _linalg.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
```

```
|-- __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
```

|-- \_\_init\_\_.pyi

```
|-- 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
```

```
|-- __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/
```

|-- tests/

```
-- 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)
    |-- big5freg.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
    -- REOUESTED
    |-- ... (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
            |-- linalg.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
            |-- gcvspl.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__/
            |-- __init__.cpython-312.pyc
            |-- 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)
   |-- 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
    |-- lobpcg/
       |-- __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_lobpcg.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
            |-- lqmres.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 arithmeticld.cpython-312.pyc
            |-- test_array_api.cpython-312.pyc
            |-- test_base.cpython-312.pyc
            |-- test commonld.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
            |-- test_hausdorff.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__/
            |-- __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
            |-- ... (1 more files)
        |-- 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
        -- 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_guess.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
    |-- gmpy.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 qmpy.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)
    |-- boolalq.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.q4
    |-- __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
            -- cgs.cpython-312.pyc
            |-- length_weight_time.cpython-312.pyc
            |-- mks.cpython-312.pyc
            |-- mksa.cpython-312.pyc
            |-- ... (2 more files)
        |-- cqs.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
        |-- appellsegs.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__/
                |-- __init__.cpython-312.pyc
                -- 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
        |-- ... (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)
    -- <u>___pycache___/</u>
        |-- 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
            |-- qat/
               |-- __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
|-- gat/
   |-- __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_dq_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
    |-- safequard.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
    -- fake_tensor_prop.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
                |-- 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/
        |-- HIPAllocatorMasqueradingAsCUDA.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
        -- dropout.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
```

```
|-- 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
    |-- 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
```

|-- functional.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
        -- Caffe2/
            |-- 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
   |-- ... (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
```

```
|-- 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
```

|-- common\_dtensor.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
                |-- linalg.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
```

-- annotated\_fn\_args.py

```
|-- _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
    |-- datapipe.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
```

```
|-- 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
    |-- 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.is
```

|-- ... (8 more files)

```
|-- 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__/
```

```
|-- 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
```

|-- \_\_init\_\_.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)
        -- <u>___</u>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)
    -- __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
```

```
|-- 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)
```

|-- ... (2 more files)

```
-- share/
       |-- man/
           |-- man1/
                -- isympy.1
                |-- ttx.1
-- .vscode/
-- Datasets/
   |-- Drive_Dataset/
        -- 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_jpg.rf.1953be29e0ab964595be9043e9166c4c.jpg
               -- 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 jpq.rf.laccee6a9ce0542f783ddd6f0f07876b.txt
               |-- ... (757 more files)
   -- Github_Dataset/
        |-- README.dataset.txt
        |-- README.roboflow.txt
        |-- data.yaml
       -- test/
           |-- images/
               -- 200905_162344_0000000001_CAM1_NG_1_jpg.rf.ed9e4288a609d06fc00b4795d2f87591
                -- 200905_165109_000000001_CAM1_NG_0_jpg.rf.e6c62ba8f875361c7d6240cc205a329d
               -- 200907_071105_0000000002_CAM1_NG_1_jpg.rf.039ea940eb3d93a88c759d2264fdcfb7
               |-- 200907_072913_000000001_CAM1_NG_1_jpg.rf.7a3a6de80401f63e26d8020047fea76b
               -- 200907_081135_0000000001_CAM1_NG_0_jpg.rf.fd915111bc262731b55136006f3a3731
               |-- ... (286 more files)
           |-- labels/
               -- 200905_162344_0000000001_CAM1_NG_1_jpg.rf.ed9e4288a609d06fc00b4795d2f87591
               -- 200905_165109_0000000001_CAM1_NG_0_jpg.rf.e6c62ba8f875361c7d6240cc205a329d
               |-- 200907_071105_0000000002_CAM1_NG_1_jpg.rf.039ea940eb3d93a88c759d2264fdcfb7
               -- 200907_072913_0000000001_CAM1_NG_1_jpg.rf.7a3a6de80401f63e26d8020047fea76b
               -- 200907_081135_0000000001_CAM1_NG_0_jpg.rf.fd915111bc262731b55136006f3a3731
               |-- ... (286 more files)
       |-- train/
           |-- images/
               |-- 200905_161420_0000000008_CAM1_NG_0_jpg.rf.87ef0472b4fb760698b4111aba0f40c9
               -- 200905_161420_0000000008_CAM1_NG_0_jpg.rf.901f6374ded564ef44f0ab329a1bb668
               |-- 200905_161420_000000008_CAM1_NG_0_jpg.rf.adb8ea52c51a5ff96d9b04b9d5b33e07
                -- 200905_161420_000000008_CAM1_NG_1_jpg.rf.6519c58777ccaa57062e379b698e56c5
               -- 200905_161420_0000000008_CAM1_NG_1_jpg.rf.b7df923fd8d5eb077b35d94956badfda
```

-- pyvenv.cfg

```
|-- ... (6181 more files)
            |-- labels/
               |-- 200905_161420_000000008_CAM1_NG_0_jpg.rf.87ef0472b4fb760698b4111aba0f40c9
                -- 200905_161420_0000000008_CAM1_NG_0_jpg.rf.901f6374ded564ef44f0ab329a1bb668
                |-- 200905_161420_0000000008_CAM1_NG_0_jpg.rf.adb8ea52c51a5ff96d9b04b9d5b33e07
                |-- 200905 161420 0000000008 CAM1 NG 1 jpg.rf.6519c58777ccaa57062e379b698e56c5
                -- 200905_161420_0000000008_CAM1_NG_1_jpg.rf.b7df923fd8d5eb077b35d94956badfda
                |-- ... (6181 more files)
       |-- valid/
           |-- images/
               -- 200907_071105_0000000002_CAM1_NG_0_jpg.rf.0a77900ea34a39a9b62f742ab85a596f
                -- 200907_071634_0000000001_CAM1_NG_0_jpg.rf.496305559a165d7aa439582c238aed0c
                -- 200907_071634_0000000001_CAM1_NG_1_jpg.rf.7d6cce8971c9f2dfea23eaef9bf6ba2c
                -- 200907_072646_0000000001_CAM1_NG_0_jpg.rf.e969c4a7c2be58299ad01089b7e293ef
                -- 200907_080529_0000000001_CAM1_NG_0_jpg.rf.e31fbb3172586703eaa05313bb8f0f54
               |-- ... (587 more files)
           |-- labels/
                |-- 200907_071105_0000000002_CAM1_NG_0_jpg.rf.0a77900ea34a39a9b62f742ab85a596f
               |-- 200907_071634_0000000001_CAM1_NG_0_jpg.rf.496305559a165d7aa439582c238aed0c
                -- 200907_071634_0000000001_CAM1_NG_1_jpg.rf.7d6cce8971c9f2dfea23eaef9bf6ba2c
                -- 200907_072646_0000000001_CAM1_NG_0_jpg.rf.e969c4a7c2be58299ad01089b7e293ef
                -- 200907_080529_0000000001_CAM1_NG_0_jpg.rf.e31fbb3172586703eaa05313bb8f0f54
               |-- ... (587 more files)
|-- Prediction_step.py
-- README.md
|-- Test images/
    |-- Experiment Photos/
       -- 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)
|-- Verify_Labels.py
-- classes_info.txt
|-- ... (11 more files)
-- outputs/
   |-- aligned_plate.jpg
   -- labels/
       -- labels/
           -- weld_seam.txt
       |-- weld_seam.jpg
   -- labels2/
       -- labels/
           -- weld_seam.txt
       |-- weld_seam.jpg
   -- labels3/
       |-- labels/
           |-- welding-porosity.txt
       |-- welding-porosity.jpg
   -- labels4/
       -- labels/
           |-- welding-porosity.txt
```

```
|-- welding-porosity.jpg
    |-- labels5/
       |-- labels/
           |-- welding-porosity.txt
       |-- welding-porosity.jpg
    -- labels6/
       |-- labels/
           |-- welding-porosity.txt
       |-- welding-porosity.jpg
    |-- labels7/
       -- labels/
           |-- weld_seam.txt
       -- weld_seam.jpg
    -- labels8/
       -- labels/
           -- weld_seam.txt
       |-- weld_seam.jpg
    |-- labels9/
       -- labels/
           -- weld_seam.txt
       |-- weld_seam.jpg
   |-- weld_seam.jpg
|-- weights/
   |-- weld_seam.pt
   |-- welddefect_drive.pt
   |-- welddefect_github.pt
   |-- weldingPlate.pt
   |-- yolov8n.pt
```