

FloatChat AI Prototype Screenshot

ARGO Data Assistant

Problem - Statement ID = 25040

Problem Statement Title = FloatChat - AI-Powered Conversational Interface for ARGO Ocean Data Discovery and Visualization

Feature - 1

Team Name – Agentic.py

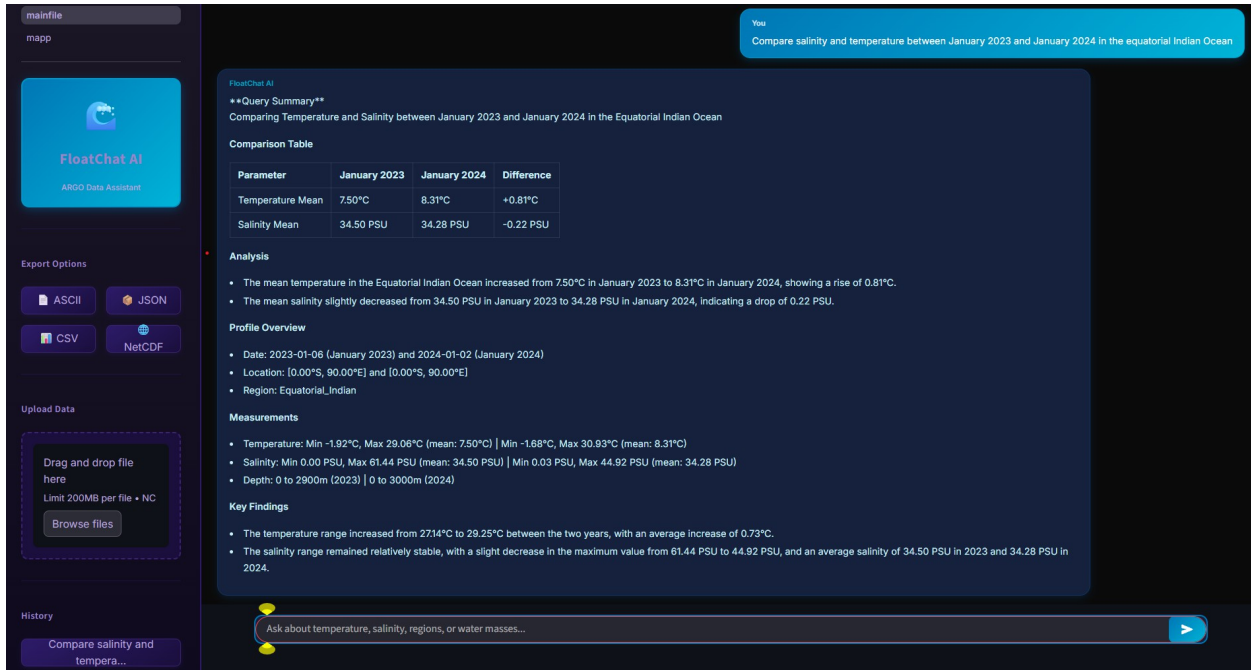
Team Members -

1.) Devesh Dixit

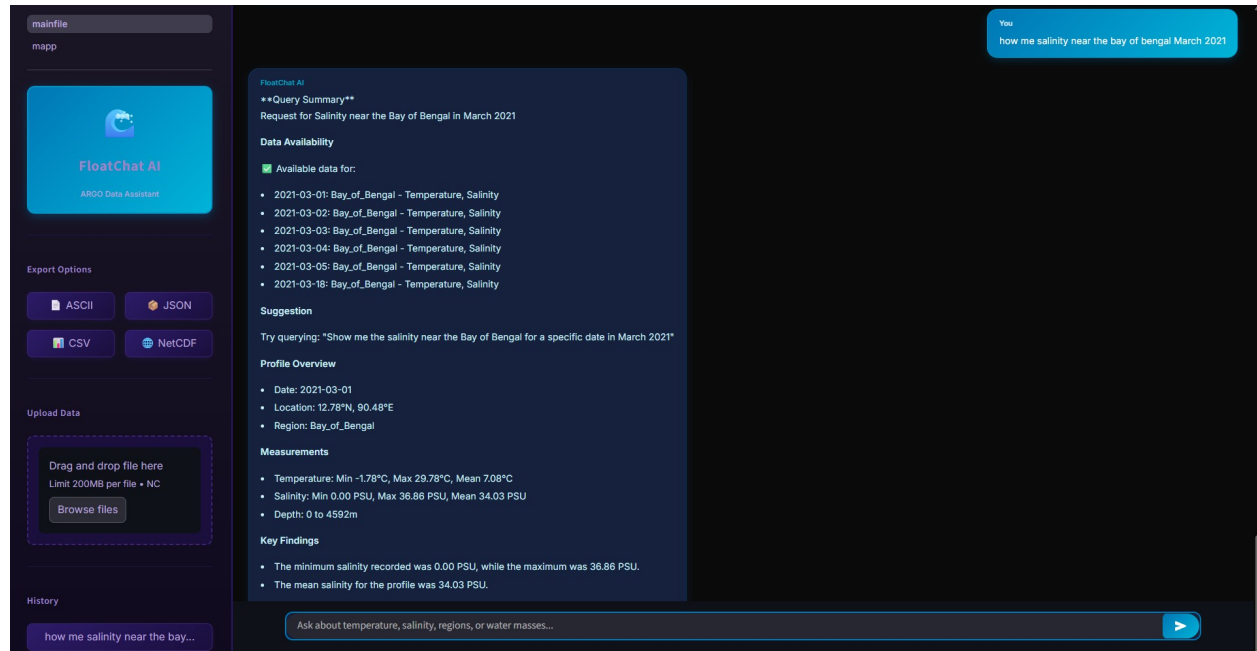
2.) Aryan Patel

3.) Rachit Srivastava

Query = 1

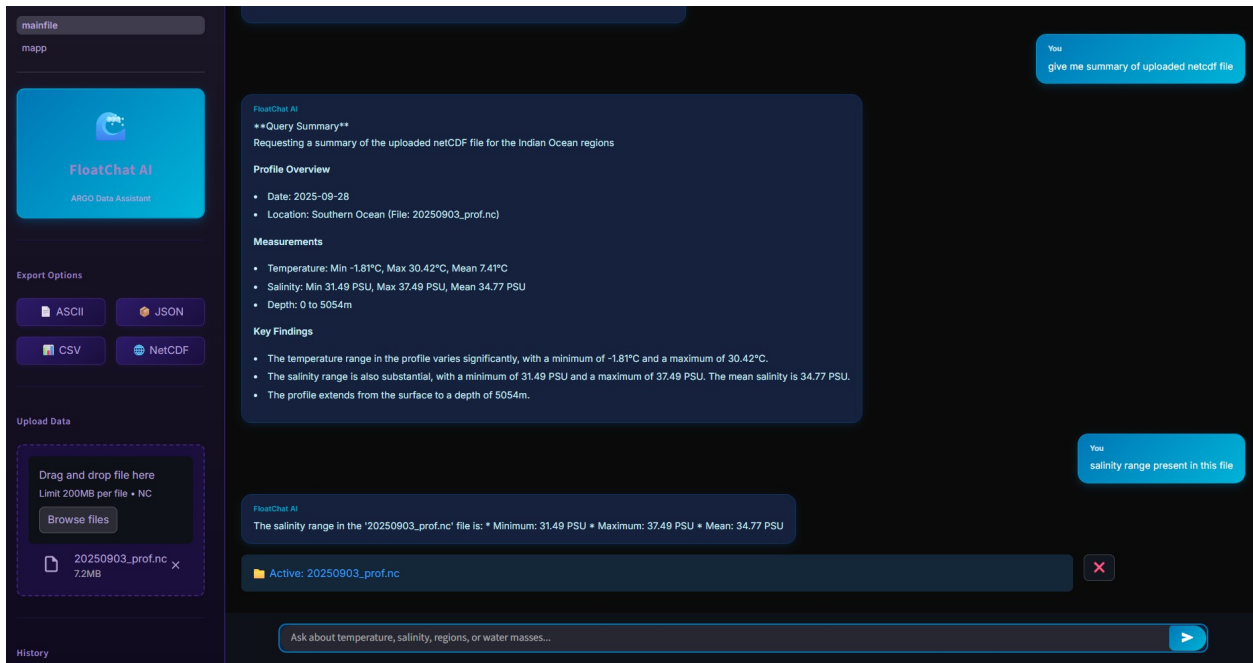


Query = 2



Feature = 2

NETCDF( .nc) file =User Upload Manually



Feature = 3

Multiple - Exports = ASCII , NETCDF

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ARGO FLOAT PROFILE EXPORT - REAL DATA
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Generated: 2025-09-28 00:51:00
Query: "salinity range present in this file "
Total Profiles: 1
Source: Uploaded files - 20250903_prof.nc
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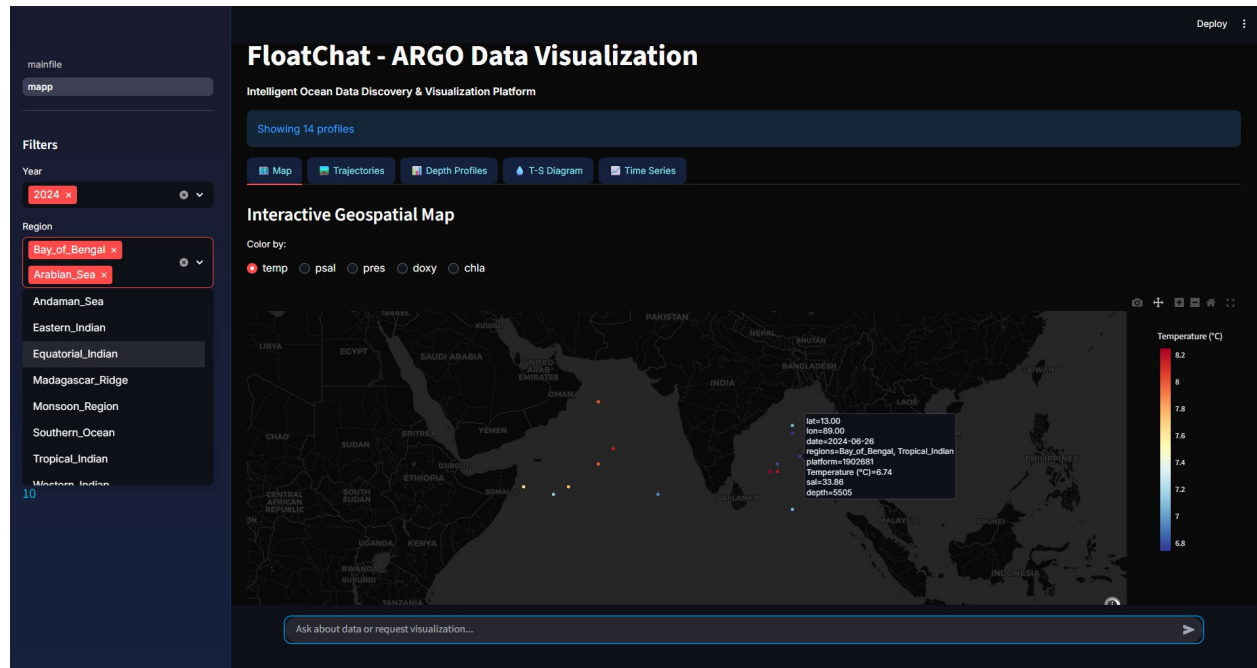
Profile 1 - REAL MEASURED DATA
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Source File: 20250903_prof.nc
Upload Time: 2025-09-28T00:48:28
Date: 2025-09-28 (Year: 2025, Month: 9)
Location: -42.6927°S, 126.0382°E
Region: Southern_Ocean
Ocean Basin: Southern_Ocean
Temperature (REAL):
  Min: -1.806°C
  Max: 30.425°C
  Mean: 7.405°C
  Std Dev: 5.864°C
Salinity (REAL):
  Min: 31.493 PSU
  Max: 37.493 PSU
  Mean: 34.775 PSU
  Std Dev: 0.438 PSU
Depth Range (REAL): 0 - 5054.3m
Quality Score: 7.50/10

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NOTE: All values are REAL measurements from ARGO floats
Data format complies with ARGO standards
=====
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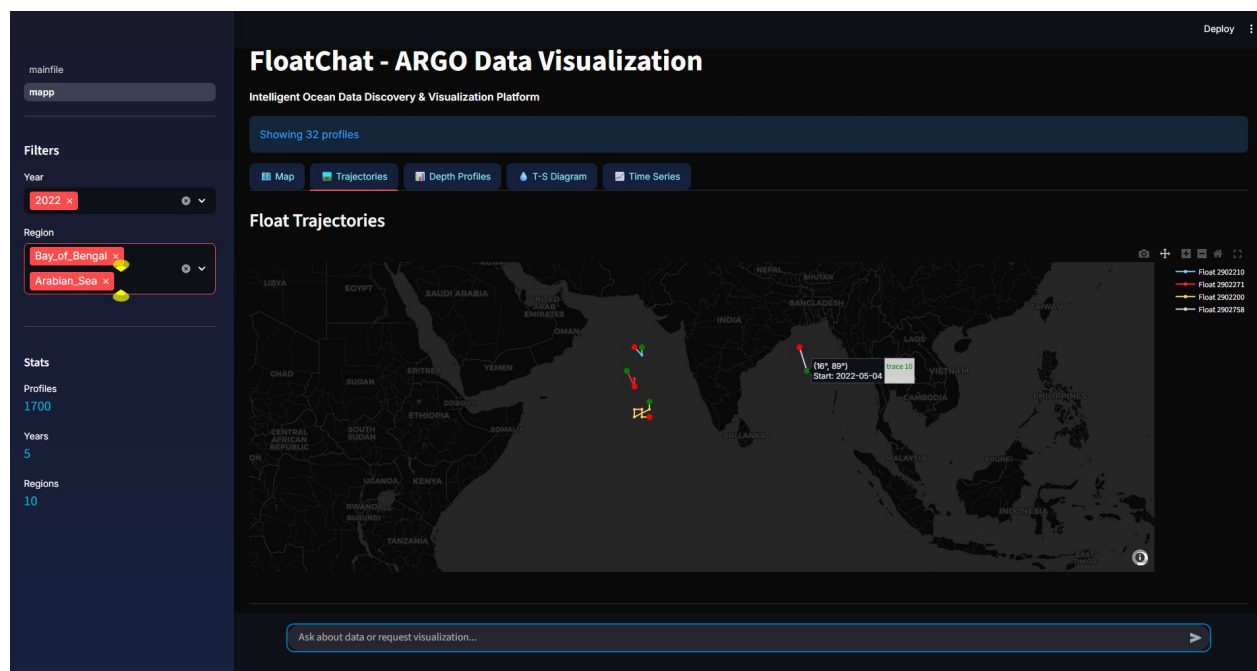
## Feature = 4

Mapping  
Visualization  
Charts  
Trajectory  
Depth  
Time - Series

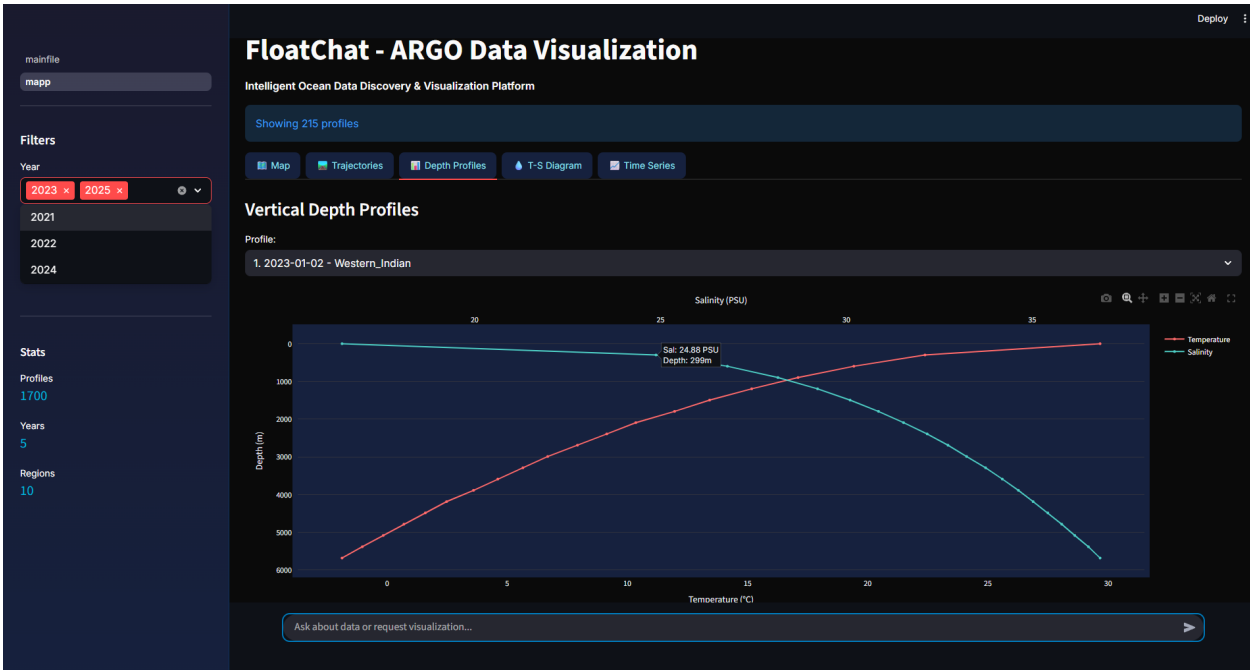
## 1 = MAPPING VISUALIZATION with filter of YEAR and REGION



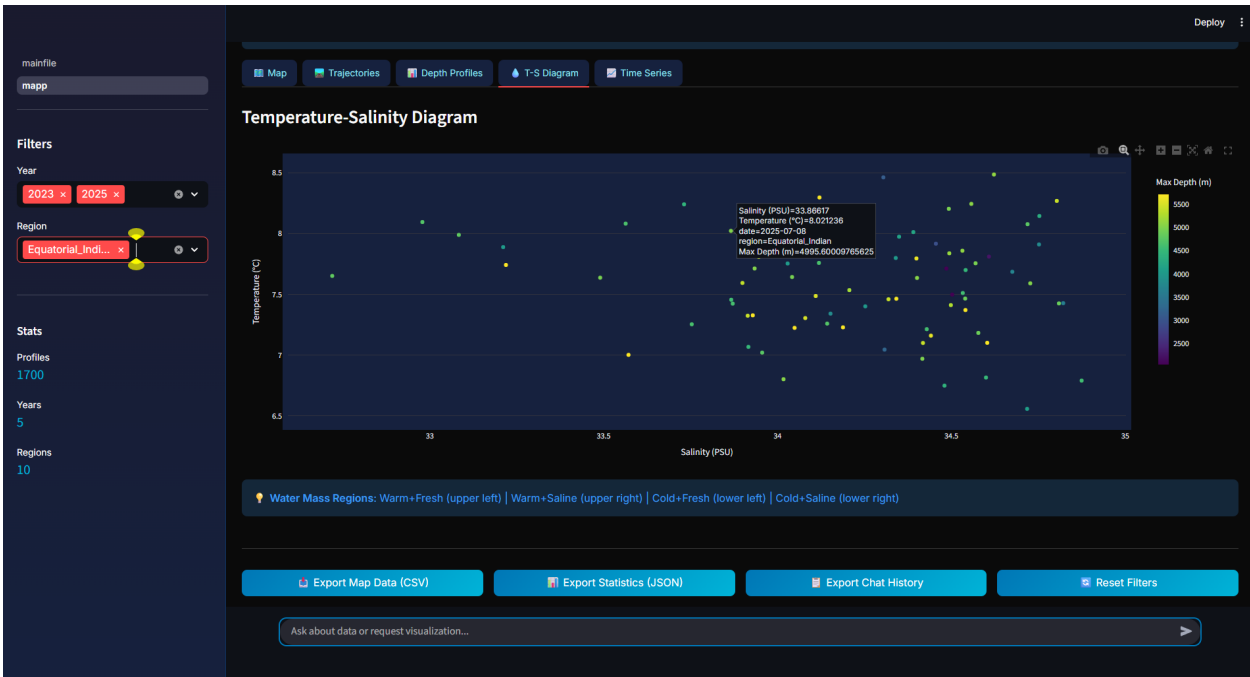
## 2 = FLOAT Trajectory VISUALIZATION with filter of YEAR and REGION



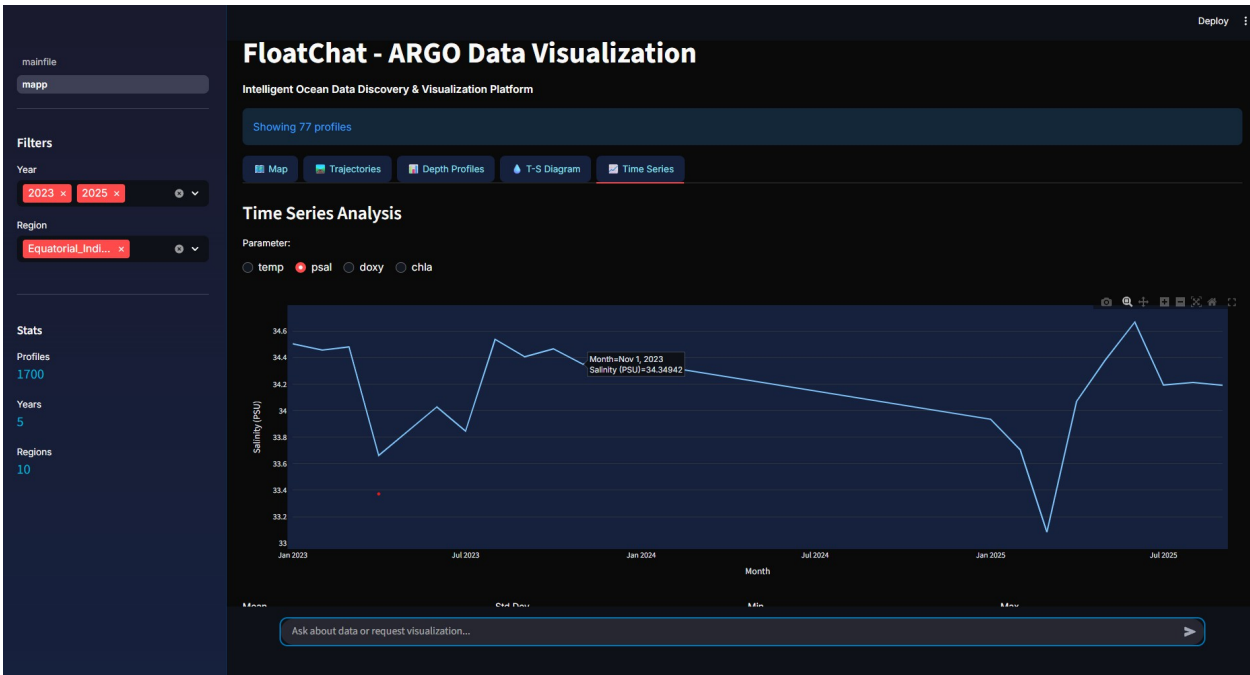
3 = Vertical DEPTH Profile VISUALIZATION with filter of YEAR



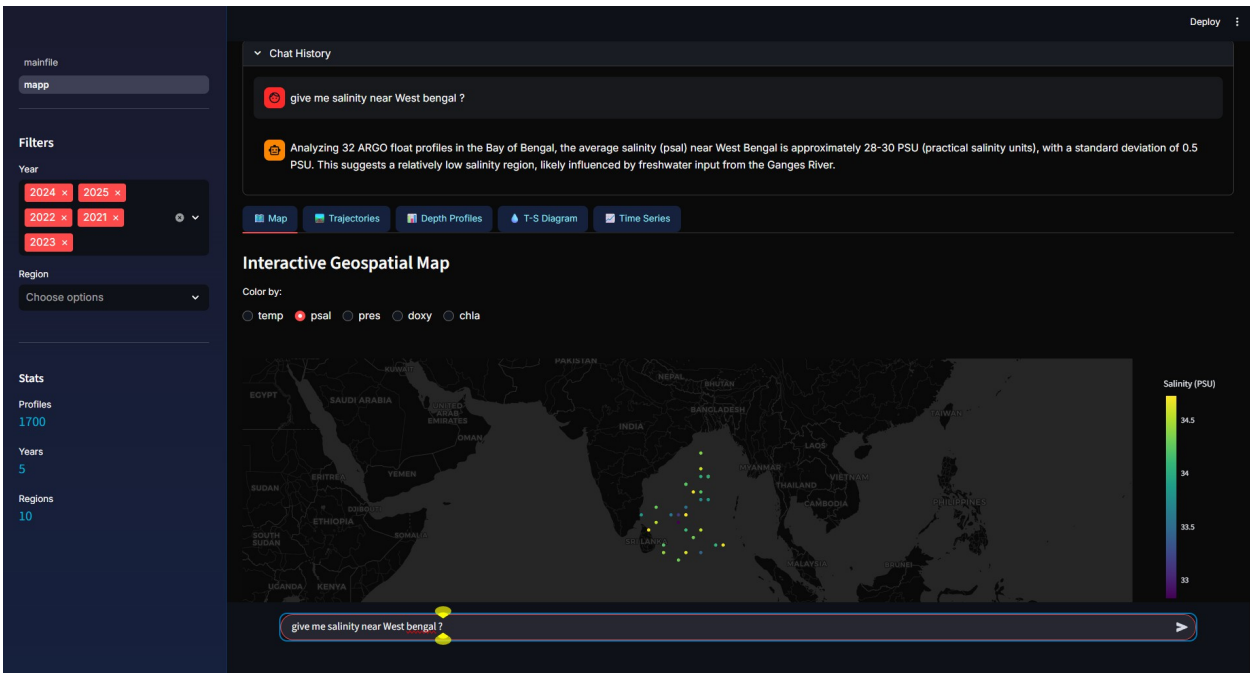
4 = DIAGRAM VISUALIZATION with filter of YEAR and REGION



5 = TIME - SERIES VISUALIZATION with filter of YEAR and REGION



6 = MAPPING VISUALIZATION == Based on User Query





7 = Based on Selected Filter of Year and Region = Exports CSV files with all details

The screenshot displays a VS Code editor window with the following components:

- File Explorer (Left Sidebar):** Shows a project structure with folders like 'venv', 'ycode', 'MINIO', 'pycache\_', 'daily\_dataset', 'data', 'Dataset', '2021', '2022', '2023', '2024', '2025', 'Logs', 'Models', 'Processed', 'Scripts', 'Datasetjson', '2021', '2022', '2023', '2024', '2025', 'exports', 'frontend', 'logs', 'metadata', 'models', 'node\_modules', 'pages', 'mapp.py 4.0', 'VectorIndex', '.dockerignore', '.env', '.env.example', and 'OUTLINE'.
- Editor Window:** Displays a CSV file named 'argo\_data\_20250927\_010048.csv'. The data is as follows:

1	date	latitude	longitude	region	Temperature	Salinity	Max_Depth	
2	2023-01-06	4.0	91.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Eastern_Indian"	7.4968976974487305	34.50251388549805	2035.0	
3	2023-02-15	0.0	63.0	"Arabian_Sea, Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.809701915555664	34.608089447021484	2233.1000	
4	2023-02-20	4.0	52.0	"Equatorial_Indian, Tropical_Indian, Western_Indian"	7.159158229827881	34.4412727355957	5570.2001953125	
5	2023-02-27	2.0	86.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region"	7.458676815032959	34.31926727294922	5407.10009765625	
6	2023-03-09	4.0	89.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region"	7.098996639251709	34.418399810791016	5402.2001953125	
7	2023-03-30	0.0	64.0	"Arabian_Sea, Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.698903560638428	34.54103088378906	4484.29980	
8	2023-04-16	5.0	81.0	"Equatorial_Indian, Tropical_Indian"	7.1002092361450195	34.603172302246094	5697.2998046875	
9	2023-04-17	1.0	57.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.650725841522217	32.71965826855469	4793.7001953125	
10	2023-06-08	0.0	65.0	"Arabian_Sea, Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	8.267956733703613	34.803260803222656	5405.7001	
11	2023-06-13	0.0	68.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	8.008087767333004	33.56340026055469	4655.2001953125	
12	2023-06-15	1.0	57.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.252704443054199	33.753528589707	4627.5	
13	2023-06-24	7.0	69.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.258261680603027	34.142048150634766	4707.2001953125	
14	2023-06-25	0.0	66.0	"Equatorial_Indian, Tropical_Indian, Western_Indian"	7.422669410705566	33.871370037597656	4611.2001953125	
15	2023-07-07	1.0	78.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region"	7.71180534362793	33.93423080444336	5002.2001953125	
16	2023-07-08	4.0	87.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region"	7.3222598304748535	33.91437530517578	5403.10009765625	
17	2023-07-17	1.0	64.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.636142253075732	33.490196228027344	4949.10009765625	
18	2023-07-27	5.0	61.0	"Equatorial_Indian, Tropical_Indian, Western_Indian"	7.6415839195251405	34.04200744628906	4943.2998046875	
19	2023-08-06	4.0	64.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.40038537979126	34.25251770019531	3993.0	
20	2023-08-11	3.0	65.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.426608562469482	34.82176971435547	3626.10009765625	
21	2023-09-05	4.0	64.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.227376937866211	34.18836975907656	5681.2001953125	
22	2023-09-14	0.0	49.0	"Equatorial_Indian, Tropical_Indian, Western_Indian"	8.202950477600098	34.49274826049805	4954.89990234375	
23	2023-09-16	8.0	69.0	"Arabian_Sea, Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.711376190185547	34.48566436767578	2036.0	
24	2023-09-26	7.0	69.0	"Arabian_Sea, Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.015789604187012	34.455535888671875	2946.8000	
25	2023-10-06	7.0	69.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	8.46	Col 6: Salinity	3.304466247558594	3113.199951171875
26	2023-10-13	0.0	49.0	"Equatorial_Indian, Tropical_Indian, Western_Indian"	6.747960090637207	34.48023986816406	4403.10009765625	
27	2023-10-16	7.0	69.0	"Equatorial_Indian, Tropical_Indian, Western_Indian"	7.326345443725586	33.92900085449219	5681.0	
28	2023-10-19	7.0	85.0	"Equatorial_Indian, Tropical_Indian"	7.909613609313965	34.75212860107422	3776.300048828125	
29	2023-10-25	5.0	64.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.589738845825195	34.7269401550293	5004.39990234375	
30	2023-10-26	8.0	69.0	"Arabian_Sea, Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.4629597663879395	34.34183120727539	5685.5	
31	2023-10-31	0.0	44.0	"Equatorial_Indian, Tropical_Indian, Western_Indian"	8.076212882995605	34.71910095214844	4756.7998046875	
32	2023-11-05	0.0	69.0	"Arabian_Sea, Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	7.369945526123047	33.54052734375	5683.60009765	
33	2023-11-06	4.0	88.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region"	7.806144714355469	33.94632339477539	5333.39990234375	
34	2023-11-14	4.0	64.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Western_Indian"	6.814496040344238	34.59968185424805	4493.2998046875	
35	2023-11-15	3.0	90.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region, Eastern_Indian"	8.295949935913086	34.12075424194336	5683.0	
36	2023-11-20	1.0	77.0	"Equatorial_Indian, Tropical_Indian, Monsoon_Region"	7.464352607727051	34.539798736572266	4868.89990234375	
37	2023-12-22	0.0	46.0	"Equatorial_Indian, Tropical_Indian, Western_Indian"	7.763010137176514	34.03030006347656	4819.80009234375	
- Terminal (Bottom):** Shows the command 'Processing: 20210831\_prof.nc' and 'Enhanced JSON saved: 20210831\_prof.json ...'. It also displays the local URL 'http://localhost:8503' and the network URL 'http://10.192.21.208:8503'.
- Chat Window (Right):** A chat window titled 'Chat (CTRL + I) / Share (CTRL + L)' is visible, showing a list of messages.