

## EDUCATION

**Master of Science in Information Systems**, University of Maryland Baltimore County

**Aug 2023 - May 2025**

**Bachelor of Engineering in Information Technology**, University of Mumbai

**Aug 2019 - May 2023**

## ACADEMIC & PROFESSIONAL PROJECTS

**Hawaii Tidal Level Analysis & Modelling (ongoing)** (DOI: 10.5281/zenodo.11508505 )

- Analyzed and modeled tidal levels for Honolulu, Hawaii (2000-2024) to support disaster mitigation strategies. Preprocessed NOAA sea level data using Pandas for accurate analysis.
- Applied statistical analysis and feature extraction with Numpy to enhance model accuracy and developed time series forecasting and classification models using Scikit-Learn and TensorFlow and visualized key patterns with Matplotlib, aiding in coastal flooding predictions.

**Sentiment Analysis for Amazon Reviews using NLP** (DOI : 10.5281/zenodo.11998892)

- Spearheaded sentiment analysis of Amazon reviews using NLP techniques (NLTK, Textblob, WordCloud, TF-IDF), achieving 90% accuracy in sentiment classification, enhancing product insights.
- Implemented ML models (Logistic Regression, SVM, Decision Tree, Random Forest) with cross-validation, boosting sentiment classification accuracy up to 74%, optimizing business decision-making.

**UAE Weather Prediction & Analysis** (DOI: 10.5281/zenodo.11998892 )

- Executed Apache Spark jobs on the Taki cluster using Python, applying Linear Regression, Random Forest, and Decision Trees for weather data analysis, achieving a **15%** improvement in prediction accuracy.
- Deployed and managed a structured streaming pipeline with Spark, utilizing Python to ingest and process CSV data, enabling real-time analysis of maximum temperatures with a reduction in processing time by **30%**.

## SESSION ORGANIZATION & MODERATION

1. **Student and Early Career Workshop**, *Ocean Science Meeting 2024 - New Orleans, USA - 18-23 Feb 2024*
2. **Student Mixer**, *Ocean Science Meeting 2024 - New Orleans, USA - 18-23 Feb 2024*
3. **Session Chair** - "Data Science and Artificial Intelligence in Ocean and Marine Science: Sustainable Urban Planning and Risk Management", *Ocean Science Meeting 2024 - New Orleans, USA - 18-23 Feb 2024*
4. **Session Moderator** - "Environmental Impacts on Marine Ecosystems and Fisheries", *Ocean Science Meeting 2024 - New Orleans, USA - 18-23 Feb 2024*
5. **Scientific Session Organizer** - Bridging the Knowledge Gaps Between the Society, Scientist and Research for Achieving the Ocean Governance for Sustainability through Digital Science, *Ocean Science Meeting (OSM 2022) - Honolulu, USA - 27 Feb to 4 Mar 2022*
6. **Organized Scientific Session** - Application of Digital Technology and Advance Network Technology to Mitigate the Impacts of Global Climate Change, *Sustainability Research and Innovation Congress (SRI) 2022 - Pretoria, South Africa - June 20-24, 2022*
7. **Organized Technical Session TS-4.5** - Advance Network Technology to Prevent Marine Pollution Through Societal Participation, *7th International Marine Debris Conference - Busan, Republic of Korea - 18-23 Sep 2022*
8. **Organized Panel Discussion** - UN Ocean Decade Laboratories - A clean ocean; Panel on Application of Digital Technology For Ocean Science Awareness, *UNESCO and Federal Ministry of Education and Research - Berlin, Germany - 19 Nov 2022*

## PRESENTATION/ CONFERENCE PARTICIPATION

1. **Application of Data Science Using Mobile Phone Technology For Management Of Water Utilities: Challenges and Opportunities in Business Sector**, *WaterSciCon24*, American Geophysical Union, Minnesota, Minneapolis, June 2024
2. **Application of Data Science And Artificial intelligence In Ocean and Marine Science: Sustainable Coastal Urban Planning and Risk Management**, *Ocean Sciences Meeting 2024*, New Orleans, Louisiana, Dec 2022 - Feb 2024
3. **Innovative Mobile and Data Technologies To Support The Water Utilities And Water Resources Sustainability**, *Chapman Conference on Remote Sensing of the Water Cycle*, American Geophysical Union, Feb 2024.
4. **Student Representative & Planning Committee Member - Ocean Sciences Meeting 2024**, *The Oceanography Society*, New Orleans, Louisiana, Dec 2022 - Feb 2024
5. **"Artificial Intelligence and Data Science for Tsunami Disaster Risk Reduction: Lessons Learned from South Asian Tsunami"**, *AGU Fall Meeting - Chicago, IL, USA - 16-22 Dec 2022*
6. **"Emerging Trends and Challenges in Data Science and Big Data Analytics for Mitigating Impacts of Ocean and Climate Change"**, *AGU Fall Meeting - Chicago, IL, USA - 16-22 Dec 2022*

7. **"Application of Data Analysis and Data Management for Insurance Sector: To Mitigate the Climate Risk"** ,*Sustainability Research and Innovation Congress (SRI) 2022 - Pretoria, South Africa - June 20-24, 2022*
8. **"(U43E-04) Interlinkages Between Open Science and Open Data: Emerging and Innovative Data Tools and Technologies for FAIR Data"** , *AGU Fall Meeting - New Orleans, LA, USA - 13-17 Dec 2021*
9. **"(U11A-05) Effective Communication of Climate Change Risk: Role of Digital Technology and Public Participation"** , *AGU Fall Meeting - New Orleans, LA, USA - 13-17 Dec 2021*
10. **"Panelist for UNFCCC-COP 26 - Panel on Challenges for Sustainable Cities for Climate Change Mitigation: Implementing SDGs for Sustainability - Role of Information Technology"** , *Glasgow, UK - 10 Nov 2021*
11. **"Empowering Student and Academic Communities for Coastal Cleaning and Beach Sweeping Programs Along Arabian Sea Using Information and Communication Technologies"** , *Ocean Science Meeting 2020 - San Diego, USA - 16-21 Feb 2020*
12. **"Implementing Sustainable Development Goal no.14-Life below Water using Information Technology for Empowering Students for Conserving Marine and Coastal Biodiversity"** , *Ocean Science Meeting 2020 - San Diego, USA - 16-21 Feb 2020*
13. **"Application of Artificial Intelligence for Flooding Studies, Focusing on Tsunami and Extreme Water Related Disasters Along Coastal Region in the Asia-Pacific"** , *Workshop on Correlated Extremes, The Columbia Initiative on Extreme Weather and Climate - Columbia University, New York, USA - 29-31 May 2019*

## AWARDS

1. **American Geophysical Union Travel Grant**, WaterSciCon24, St. Paul, Minnesota, MN, USA (June 2024)
2. **National Science Foundation, PyRates Workshop** given by Linked Earth, University of Southern California, CA, USA (June - October 2024)
3. **American Geophysical Union Travel Grant**, AGU Chapman Conference on Remote Sensing of the Water Cycle: Sensors to Science to Society at Honolulu, HI, USA - 13-16 Feb 2024.
4. **National Science Foundation, NSF, USA grant given by GOBCG** for participation in GO-BGC/BGC Argo Float Data Workshop at University of Massachusetts Boston, USA - 21-23 Aug 2023.
5. **Volkswagen Foundation**, Climate Related Systemic Risks: Lessons Learned from Covid-19, Herrenhausen Palace in Hanover, Germany - June 21-23, 2023.
6. **American Geophysical Union Student Travel Grant** for presentation on Artificial Intelligence and Data Science for Tsunami Disaster Risk Reduction, AGU Fall meeting, Chicago, USA - 12-16 Dec 2022.
7. **Young Scientist Award** from UN-Environment (UNEP) and Gulf and Caribbean Fisheries Institute, USA, for participation in 7th International Marine Debris Conference, Busan, Republic of Korea - 18-23 Sep 2022.
8. **Lloyd V. Berkner Travel Fellowship**, USA for presentation at AGU Fall meeting, New Orleans, LA, USA - 13-17 Dec 2021.
9. **American Geophysical Union Travel Grant** for presentation at AGU, Ocean Science Meeting, OSM 2020 - San Diego, USA - 16-21 Feb 2020.
10. **Travel Scholarship - The Columbia University** for participation in Workshop on Correlated Extremes - New York, USA - May 2019.
11. **Student Travel Grant** for presentation on Challenges of Economic, Social and Cultural Development in Coastal Disasters Management at Ocean Science Meeting, OSM2018 - Portland, Oregon, USA -11-16 Feb 2018

## PROFESSIONAL MEMBERSHIPS

1. Member - American Geophysical Union
2. Member - Development Studies Association (DSA), 23,Linton Road, Hove, U.K. (No.M38710)
3. Associated Member - Japan Geoscience Union (JpGU), Japan (No.040211)
4. Member - The Association for the Sciences of Limnology and Oceanography (ASLO), USA
5. Alternate Focal Point of NGO/CSO- Mountain Partnership, Food and Agriculture Organization, FAO, Rome, Italy
6. Member - Research Data Alliance, (RDA), Oxford, U.K.
7. Main NGO Representative of NGO/CSO at United Nations Office of Geneva, Geneva, Switzerland
8. Main NGO Representative of NGO/CSO at United Nations Office of Vienna, Vienna, Austria

## TRAINING & WORKSHOP PARTICIPATION

1. **GO-BGC/BGC Argo Float Data Workshop (NSF Funded)**, Worked on Hurricane Sam to find insights, Boston, MA, Aug 2023.
2. **pyRATES: Python and R Analysis of Time Series (NSF Funded)** , (Ongoing Project - Hawaii Tidal Level Analysis & Modelling), USC ISI, Los Angeles, CA, May 2024 - October 2024