

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Cambridge, MA

Dual Degree: M.S. in Computer Science | M.S. in Engineering and Management

2023 - Present

- Coursework: Clinical Machine Learning and Deployments, Computer Networks, Databases for Supply Chains, Data Science and Machine Learning for Supply Chains, System Engineering, System Architecture, Analytics Edge, TinyML and Efficient Deep Learning Computing
- VP of Finance- Student leadership Committee

INDIAN INSTITUTE OF TECHNOLOGY

Guwahati, India

B. Tech, Major: Mechanical Engineering | Minor: Product Design

2012 - 2016

EXPERIENCE

MIT SCHWARZMAN COLLEGE OF COMPUTING

Cambridge, MA

Graduate Research Assistant

May 2024-Present

High Resolution Oceanic Remote Sensing Data Characterizations using ML/NN

- Numerical simulation on SSH data from NASA SWOT satellite to understand upper ocean characteristics.
- Developing clustering algorithms pipeline (e.g., Gaussian Mixture Models, Agglomerative) and implementing dimensionality reduction techniques (PCA, t-SNE) to analyze high-dimensional satellite remote sensing data.
- Collaborating with experts to evaluate seasonal & regional ocean variability, aiding climate modeling & prediction

MIT CENTER FOR TRANSPORTATION AND LOGISTICS

Cambridge, MA

Graduate Teaching Assistant

Jan-May, 2024

Data Science and Machine learning for Supply Chain (SCM.256)

- Instructed on machine learning, neural networks, SHAP, Transformers, data pipelines, and time-series analysis.
- Guided students in coding, facilitated problem-solving, and applying real-world industry scenarios.
- Supervised project: Google Cloud Infrastructure as a Service demand forecasting & phase in-phase out analysis.

INDIAN SPACE RESEARCH ORGANIZATION (ISRO)

Bengaluru, India

National Space Agency of India, focused on space applications, interplanetary exploration, and technology development.

Systems Engineer

2020 - 2023

- Automated satellite configuration design by developing a GUI-based calculator in Python, reducing time by 30%.
- Developed and deployed a satellite data repository, streamlining data access & analysis efficiency across teams.
- Developed Computer vision model to classify spacecraft based on-board imagery data in on-orbit service missions.
- Chaired daily stand-up meetings and sprints for teams across organization which led to satellite panels refurbishment in a record 3 months of time, without compromising systems reliability.

Product Engineer

2016 - 2020

- Optimized thermal shielding design for Lunar regolith probe, reducing mass by 50% without compromising efficiency.
- Led a team of 20 technicians to realize antenna for South Asian satellite, using 3D models, FE & drawings.
- Coordinated software-driven testing & validation, enhancing hardware qualification processes for sub-systems.

PETROLEUMSOFT

Delhi, India

Company focused on oilfield chemical treatment design and optimization for the oil and gas industry

Project Assistant

2014 - 2015

- Implemented computational modelling in C++ for Chemplace software intended to predict oil well behavior.
- Improved model prediction accuracy by over 10 %, working with teams across UK, Norway and India.
- Onboarded a team of 5 juniors to carry forward the development work.

ADDITIONAL INFORMATION

- Software Skills: Python, R, C, HTML, CSS, MySQL, AutoCAD, TensorFlow, NumPy, Pandas, Xarray, MATLAB
- Managed free & fair polling 2019 general elections for local constituency as Government of India executive.
- Hobbies: Mountain Trekker (Completed Mt. Everest Base Camp and Brahmatal), Board Games enthusiast & Marvel and Anime fan.