

RATNAKSHA LELE

ratnaksha.github.io | ratnaksha.lele@gmail.com

10+ years experience in R&D, computational modeling and engineering. Background in working with cross-functional teams, delivering solutions using big-data analytics and machine learning in the environmental and agricultural sectors. Seeking opportunities to apply data-driven frameworks on real-world engineering, business and logistics challenges.

EDUCATION

PhD, Oceanography (Physics)
University of California, San Diego
2023

MS, Oceanography (Physics)
University of California, San Diego
2018

BS, Mechanical Engineering
VIT University
2016

SKILLS

Programming:
Python • MATLAB • C

AI frameworks:
Sklearn • PyTorch

BI frameworks:
PowerBI • SQL • Tableau

KEY COMPETENCIES

Predictive Analytics
Data-driven Model Development
Business Analytics
Process Improvement
Strategic Thinking
Project Management
Data-driven Marketing

LINKS



www.github.com/ratnaksha



www.linkedin.com/in/ratnakshalele

WORK EXPERIENCE

UC SAN DIEGO | POSTDOCTORAL SCIENTIST
SEPT 2023 – PRESENT

- Project lead on developing explainable-AI methods to map future sea-level rise in the global ocean using satellite, remote sensing and in-situ oceanographic data.

CORTEVA AGRISCIENCE | DATA SCIENTIST
MAR 2023 – OCT 2023

- Data science lead on internal project with machine learning engineering team to develop machine learning models and scalable data pipelines, to deliver accurate corn yield forecast to farmer stakeholders for over 1M fields in the US.
- Collaborated with marketing insights team to develop end-to-end data-driven seed product recommendation system using environmental and genetic features, ensuring customer satisfaction and increasing business value.
- Engaged with cross-functional teams and explained key findings to leadership at Quarterly meetings for greater inter-team visibility and collaboration.

JUPITER INTELLIGENCE INC. | DATA SCIENTIST INTERN
JUN 2022 – SEPT 2022

- Project lead on engineering and testing a pilot machine learning model to predict coastal flooding in future climate scenarios along the US coastline.
- New modeling framework increased flood modeling accuracy, while cutting model training cost by up to 80%.

UC SAN DIEGO | PhD CANDIDATE RESEARCHER
AUG 2016 – Sept 2023

- Project lead on multiple research projects over 6 years using time series analysis, statistical techniques, signal processing and instrumentation development to advance understanding of the ocean's role in the climate system.
- Innovative AI methods using deep learning neural networks, gaussian mixture models and decision trees leading four publications and \$200k in grant awards.

AWARDS

2020 NASA Future Investigator in Earth and Space Science Fellowship Grant
2020 NASA JPL Center for Climate Science Summer School
2017 Departmental Travel Award for Research Excellence
2016 UC San Diego Regents Fellowship
2016 VIT University Special Achiever Award
2015 Woods Hole Oceanographic Institution Summer Student Fellowship
2014 Indian Academy of Sciences Summer Research Fellowship