

# Krishna Rao

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🌐 [krishnakrao.github.io](https://krishnakrao.github.io)

in [kkraoj](#)

🔗 [kkraoj](#)

## INDUSTRY

### Data Scientist, Watershed

📍 San Francisco, CA

Aug, 2022 -

- Developed intelligent models to measure carbon emission of suppliers and prioritise engagement (team of 8)

### AI Resident, Google X (The Moonshot Factory)

📍 Mountain View, CA

Jun-Sep, 2021

- Led part of a moonshot for ML-based forecasting of changing environmental conditions at high fidelity [Blog](#)
- Filed patent as co-inventor for “Training machine learning models using intermittent data” (team of 3)
- Improved forecasting of an environmental risk by 354% from state-of-the-art with decision trees (team of 2)

### SWE Intern, Valor Water Analytics

📍 San Francisco, CA

Jun-Sep, 2017

- Improved precision of water meter sizing by 12% from baseline using pattern recognition of time series
- Designed and built the first-ever storm water rate simulator for New York City; in use by NYC DEP [Simulator](#)

### Field Engineer, Schlumberger Ltd.

📍 UAE & India

2014-2016

- Planned and delivered 100+ oil and gas well profiling and perforation operations with a clean safety record
- Accelerated decisions during trouble-shooting downhole robots with limited information to save \$10k+/hour
- Awarded Best Team Player for building open communication practices among 18 teammates

## RESEARCH

📍 Stanford, CA

2017-2022

- Published 9 peer-reviewed papers with 270+ citations on data-driven insights of the Earth system [Publications](#)
- Founded a data-driven wildfire hazard prediction model- a big shift from poorly-parametrized physical models
- Developed geospatial physics-assisted ML algorithms for drought-driven tree mortality and wildfire hazard
- Pioneered open science with interactive apps [Forest dryness dashboard](#), [Species identifier chatbot](#), [Damaged buildings detector](#)
- Motivated diverse audiences for data-driven ecohydrology modeling through 15 presentations [Talks & Videos](#)

## EDUCATION

- Ph.D. in Earth System Science, Stanford University, USA

2018-2022

– GPA: 3.91/4.00 — Data-driven forest health monitoring

- M.S. in Civil and Environmental Engineering, Stanford University, USA

2016-2018

– GPA: 3.78/4.00 — Specialization in Environmental Fluid Mechanics and Hydrology

- B.Tech. with Honors in Civil Engineering, IIT Madras, India

2010-2014

– GPA: 9.02/10.00 — Ranked 1 among 100 students in Department. 1 among 7 students to receive Honors

## HONORS

- NASA Earth and Space Science Fellow, among 56 chosen out of 423 applicants (\$135K funding) 2018-2021
- Stanford Data Science Scholar, among 11 chosen out of 151 applicants (\$100K funding) 2020-2022
- Reviewer, Climate Change AI Innovation Grants, \$1.8M program for climate change research using AI 2021
- AWS Cloud Credits award for improved wildfire hazard monitoring using deep learning (\$8K grant) 2019
- Three-time hackathon winner: TreeHacks, Big Earth Hackathon @ Stanford, and Geo for Good @ Google
- Outstanding Achievement in Mentoring award from Stanford University for under-graduate mentorship 2019
- Two-time Community Impact Award winner for public speaking initiatives at Stanford University 2018, 2021

## OUTREACH

Published articles on AWS Blog, Stanford Data Science, Towards Data Science, Earth.org, etc.

[Blog](#)

ver:kk/Tech/Apr/22