Pranav Avva

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EDUCATION

Princeton University, Princeton, NJ   Aug 2020 - May 2024
B.S.E. in Computer Science and Certificate in Statistics & Machine Learning   **CGPA: 3.12/4.00**
Relevant Coursework: Research Projects in Data Science, Algorithms & Data Structures, Programming Systems, Computational Biology, Integrated Science, Discrete Math, Math for Machine Learning, Multivariable Calculus, Linear Algebra

TECHNICAL EXPERIENCE

Machine Learning Researcher, **Andlinger Center for Energy and Environment**, Princeton, NJ   Jun - Aug 2022
- Study causes of and predict magnetic core loss using ML/deep learning
- Implement a Seq2Seq LSTM neural network architecture with test accuracy of >99%
- Submit research paper to ICML 2023 (in progress)
- Received offer to continue research during academic year

Project Manager/Lead Software Engineer, **BoreDM**, Phoenix, AZ *(remote)*   May 2022 - Present
- Lead team of eight software engineers in developing SaaS solution for geotechnical boring data storage/submission
- Steer development progress for upcoming feature releases/bug fixes
- Develop website from Figma mockup to production-ready state in 2 months
- Collaborate with top national geotech firms and local municipalities to beta-test application

Undergraduate Teaching Assistant, **Princeton University Department of CS**, Princeton, NJ   Jan 2022 - Present
- Serve as a UTA for students in COS 126, COS 217, COS 226
- Assist students in debugging assignment submission code
- Clarify students' understanding of data structure and algorithm concepts

Chief Technology Officer, **The Daily Princetonian**, Princeton, NJ   Aug 2021 - Present
- Lead team of Software Engineers in executing digital mission of the 'Prince'
- Serve as primary point of contact for all web projects
- Design, implement, and maintain full-stack web applications serving as primary revenue generators
- Collaborate with Business and Editorial teams (400+ members) in optimizing digital publication of 'Prince' content
- Served previously as Software Engineer from August 2020 - August 2021

Software Engineer Intern, **UNICEF**, New York, NY *(remote)*   Jun - Jul 2021
- Performed web traffic analysis of UNICEF Internet of Good Things (IoGT) sites across the globe
- Created data visualization dashboards using Google Analytics and Data Studio
- Redesigned IoGT public-facing information site
- Documented IoGT v2 framework in open-source public repository

PROJECTS

Machine Learning Platform for Power Electronics Modeling   Feb 2021 - Present
- Published in The Andlinger Center for Energy and the Environment's 2022 Annual Report
- Developed Seq2Seq LSTM autoencoder model to predict circuit response waveform given excitation and scalar parameters
- Presented research results at Andlinger Center poster session
- Results and conclusions to be submitted to International Conference on Machine Learning 2023

Guess the Elo   Jan 2022 - May 2022
- Machine learning research project submitted as final assignment for Princeton course SML 310 - Research Projects in Data Science
- Prepared and tested multiple machine learning models and neural networks
- Predicts chess player rating given move list of a previously played chess game (accurate to 159 rating points of RMSE error)
- Prepared a 14-page final report, 5-minute final presentation, and answered live follow-up questions; received 'A' grade

SKILLS

Certifications: Python for Data Science and ML, Responsive Web Design, Data Structures and Algorithms
Languages: French (3 years), Sanskrit (2 years), Hindi (1 year), Urdu (1 year)
Programming: Python, TypeScript/JavaScript, Golang, HTML/CSS, C, ARMv8, Rust