ARNAV GANGAL

EDUCATION

Stanford University

Master of Science in Statistics and Data Science

• Prospective Coursework: Causal Inference / Theory of Statistics / Deep Learning / Natural Language Processing

University of California, Los Angeles

Bachelor of Science in Applied Mathematics, minor in Statistics, specialization in Computing September 2019 - June 2023

- **Coursework**: Machine Learning / Experimental Design / Computational Statistics with R / Optimization / Analysis of Algorithms / Mathematical Modeling / Probability
- Projects: Logistic Matrix Factorization using Letterboxd User Data
- Honors: Graduated summa cum laude, 3.98 GPA, UCLA Dean's List in all quarters

EXPERIENCE

Deep Learning Researcher I UCLA REU in Computational Math

Research program in computational mathematics

- Implemented and optimized physics-informed neural networks in **TensorFlow** for solving multiscale partial differential equations
- Designed a hybrid deep learning and multigrid numerical process that outperforms benchmark methodologies for similar problems
- Developed unique architectures and implemented high-performance optimizers to build efficient, highly accurate neural networks
- Synthesized and presented technical research concisely at an academic symposium
- Co-author of an academic paper summarizing success, limitations, impact on field, and directions for future research

Analyst, Consultant | UCLA Data Science Union

UCLA student-run organization working on independent and client-led data science projects

- Consulted for a food pantry locator nonprofit to identify and resolve bottlenecks in their data pipeline and engineer an integrated national food insecurity database
- Unified over **100,000** web scraped data points using Numpy, Pandas, and Beautiful Soup to develop a <u>random forest</u> <u>ensemble model</u> for predicting whether an MLB team would make the playoffs with up to **86%** accuracy
- Designed and presented a <u>live dashboard</u> featuring data visualizations of how local lockdowns and regulations impacted harmful contributors to climate change across California
- Applied unsupervised machine learning methods such as K-means clustering and Gale-Shapley algorithms to a dataset of over 10,000 individuals to help dating app startup <u>human</u> utilize the Spotify API in their matchmaking process

Events Director I UCLA Undergraduate Math Council

Student-run organization fostering an inclusive undergraduate math community

- Spearheaded and moderated an inaugural speaker series discussing diversity and inclusion in mathematics, featuring guests including quantitative analysts with the LA Dodgers, and postdoctoral researchers at UCLA
- · Coordinated and directed a series of informational and social events for math students throughout the academic year
- Led a team of 6 students to coordinate event promotion and logistics

TECHNICAL SKILLS

- Programming Languages: Python / R / Java / C++ / SQL / MATLAB / SML / Ruby
- Machine Learning Methods: CNNs / RNNs / GANs / SVMs / K-means Clustering / Self-organizing maps / Random Forests / Computer vision / Recommendation Algorithms
- Databases and Frameworks: MongoDB / Tableau / Hadoop / Data visualization

Los Angeles, California

September 2023 - March 2025

Stanford, California

Los Angeles, California May 2021 - June 2023

Los Angeles, California

September 2021 - June 2022

June 2022 - March 2023

Los Angeles, California