

NAREN PRAKASH

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KATY TX, US

EDUCATION

B.S. Statistics and Data Science

University of California, Los Angeles

GPA: 3.83

Los Angeles, CA

June 2025

Coursework: Probability Theory, Mathematical Statistics, Data Analysis and Regression, Machine Learning, Text Mining and NLP, Linear Algebra, Statistical Computing and Optimization.

RESEARCH EXPERIENCE

Data Management and Strategy

LivaNova

Houston, TX

May 2025 - April 2026

- Modeled cloud-consumption time series to build predictive forecasting and anomaly-detection systems, surfacing idle and overprovisioned spend patterns to inform resource-allocation decisions.
- Designed reproducible, automated data pipelines in Azure Synapse Analytics and Data Factory, replacing manual monthly reporting with a daily-refreshed centralized metrics source.
- Conducted SQL-based cost and utilization analysis, delivered through interactive dashboards for ongoing operational and financial reporting.

Undergraduate Researcher

Department of Statistics and Data Science, UCLA

Los Angeles, CA

January 2025 - June 2025

- Analyzed 136,238 arXiv papers to study the evolution of statistical and computational methods, using a hybrid topic-modeling pipeline integrating LDA, BERTopic, and transformer embeddings.
- Trained a LightGBM model to forecast research-output trends across topics.
- Presented findings at Undergraduate Research Week, UCLA (May 2025).

Researcher / Analyst

Bruin Sports Analytics

Los Angeles, CA

September 2024 - June 2025

- Built a Bayesian updating model to predict NFL route-target probabilities from nflfastR play-by-play data; presented at the Bruin Sports Analytics Showcase (Dec 2024).
- Designed data visualizations of match statistics for the UCLA men's tennis team, supporting coach-led opponent-scouting analysis.

Data Science and Machine Learning R&D Intern

Halliburton

Houston, TX

June 2024 - September 2024

- Benchmarked internal forecasting models by reproducing and adapting frameworks from published research.
- Developed a transformer-based deep learning model for predictive maintenance on truck-sensor telemetry, reaching 95% accuracy on sequential anomaly detection.
- Engineered a Dask multiprocessing pipeline to simulate and load synthetic training data, enabling GPU training that was otherwise infeasible at the required data scale.
- Presented research findings internally, "Autoencoders for Predictive Maintenance" (Aug 2024).

PRESENTATIONS

1. Naren Prakash. Research on Research on Research: Analyzing Historical Trends in Statistical and Computational Research. *Undergraduate Research Week, UCLA*, Los Angeles, CA; Talk.
2. Naren Prakash. A Bayesian Approach to Play Prediction. *Bruin Sports Analytics Showcase*, Los Angeles, CA; Talk.
3. Naren Prakash. Autoencoders for Predictive Maintenance. *Halliburton Internal Presentation*, Houston, TX; Talk.

INDEPENDENT PROJECTS

Romantic Comedy Comprehensive Text Analysis (March 2025)

Applied NLP techniques including tokenization, lemmatization, n-gram analysis, sentiment analysis, and LDA topic modeling to a film-script corpus; built predictive models with Random Forest and LLMs for time-period classification.

Airbnb Geostatistical Price Prediction Model (March 2025)

Built a geostatistical price prediction model for Airbnb listings using variograms and kriging; produced raster-based price maps to visualize spatial correlation trends.

Statistical Stock Portfolio Optimizer (April 2025)

Conducted portfolio optimization using historical returns with the Merton, constant correlation, single-index, multigroup, and multi-index models; evaluated portfolio risk and return under varying short-sale and correlation assumptions.

TEACHING & MENTORING

Mentor

Statistics and Data Science Club, UCLA

Los Angeles, CA

September 2024 - June 2025

- Advised undergraduate students on course planning, research opportunities, and career preparation in statistics and data science.

Module Director

CityLab at UCLA

Los Angeles, CA

March 2022 - March 2024

- Directed lab sessions in hands-on biotechnology experiments for high school students.
- Co-designed instructional modules for the program.

TECHNICAL SKILLS

Programming: Python (NumPy, Pandas, Scikit-Learn, Transformers) | R (Tidyverse) | SQL | Java

ML & Statistics: PyTorch / Transformers | Time series forecasting | Bayesian modeling | Topic modeling (LDA, BERTopic) | Geostatistics (variograms, kriging) | Statistical computing & optimization

Tools: Azure (Synapse Analytics, Data Factory) | Power BI | Tableau | Dask | Spark | CUDA | Git | Linux

REFERENCES

Dr. Vivian Lew

Senior Continuing Lecturer

Department of Statistics and Data Science, UCLA

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Dr. Nicolas Christou

Senior Continuing Lecturer

Department of Statistics and Data Science, UCLA

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