

Sreeja Apparaju

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Education

University of California, Berkeley

Aug 2019 - May 2023

B.A. Computer Science and Economics

Relevant Coursework: Artificial Intelligence, Machine Learning, Advance Probability Theory, Advance Econometrics, Financial and Behavioral Econ

Conference Publications

Compute Allocation for Reasoning-Intensive Retrieval Agents

Sreeja Apparaju, Nilesch Gupta

ICLR 2026: Workshop on Memory for LLM-Based Agentic Systems

Feedback Control for Small Budget Campaigns in Advertising

Sreeja Apparaju, Yichuan Niu and Xixi Qi

The Web Conference 2026: Workshop on Emerging Trends in Web Advertising

Work Experience

Machine Learning Engineer

New York, NY

Snap Inc

Aug 2023- Present

- Migrated two revenue-critical ML ad-ranking models to a new TensorFlow-based training and online serving platform (+0.108% revenue, -23.57% serving cost). Owned rebuilding training datasets and feature generation pipelines, ESMM model architecture, and serving-level inference (latency, cost, FLOPs reduction) which improved the model accuracy by up to 9.5%.
- Launched an agentic loop for on-call debugging for 204 data pipeline (DAG) owned by the team. It deterministically traces root causes across upstream/downstream dependencies and can debug failing DAGs independently. This has reduced 20% on-call escalation pings
- Designed an experimental pacing controller (Bucketized Hysteresis Controller) for delivery sensitive low-budget ad campaigns reducing pacing error by 13% and implemented this theoretical controller algorithm in production infrastructure. Co-authored the resulting paper which was accepted to a workshop at The Web Conference 2026.
- Built a production pipeline to automatically compute parameters for 10k+ ad campaigns using rolling-window processing and cloud storage which is fed in real time to Snap's ad delivery system. Implemented observability infrastructure across several production services to expose parameter signals for debugging and analyzing delivery across backend services, streaming systems and BigQuery.
- Led the AB testing, experimentation design, production changes and global rollout for a new pacing throttling mechanism which prevented \$154k in overspend during a production incident.
- Shipped Historical Data based Pacing Algorithm to solve cold-start problem, driving +0.284% global revenue and reducing pacing volatility by -9.44%. Implemented software across ad delivery, publisher and index which was later reused by other optimization system

Other Relevant Experiences

Research Assistant – Professor Clair Brown

Berkeley, CA

Sustainable Shared-Prosperty Index Research Paper (SSPI)

Aug 2021 – Aug 2022

- Validate statistical modeling by performing Sensitivity Testing, Factor Analysis, and Cronbach Alpha test on dataset across 17+ categories and 3 pillars using data science modules (NumPy, pandas, sklearn, pingouin, factor_analyzer) and data cleaning in Python
- Collect data from World Bank and Country Reports for performing exploratory data analysis on ESG pillar through linear regression

Course Staff – Data Science and Economic Models

Berkeley, CA

UC Berkeley Division of Computing, Data Science and Society

Aug 2020 – Dec 2021

- Lead instructor for a class of 85+ undergraduate students where I teach lectures, prepare course material, and hold weekly office hours
- Designed 2 modules and lectured on Opinion Dynamics in financial markets and on Development Inequality using 1.5 GB of raw data
- Hold weekly 1-2 office hours to help students understand various concepts discussed in class and debug questions in Jupyter notebooks

Founder & PM

Berkeley, CA

Bear Beginnings

Jun 2020 – Jan 2021

- Initiated this passion project and led a team of 10 students to build a website easing Batch of 2024's online transition during COVID
- Defined product vision/roadmap to build MVP across 4 cross-functional units and gathered 200+ stories from continuing students
- Received Cal Alumni Leadership Award (\$ 2K) for this initiative and successfully guiding 100+ incoming students on life at UC Berkeley

Affiliations

Fellowships: Wharton@IDDEAS 2022 Scholar (A two-day predoctoral seminar to learn about earning a Ph.D. at a business school and academic careers. Wharton Doctoral Programs selected only 14 scholars from a national pool based on their academic records, recommendations, and potential for conducting independent research), EVCA Fellow (selects 30 undergrads across the country driving projects and research across VC-related projects)