Rohan Chauhan

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Education

University of California, Berkeley Berkeley, CA
Bachelor of Arts in Applied Mathematics, Computer Science; GPA 3.92 *Jun 2020-May 2024*
Relevant Coursework: Data Structures, Algorithms, Probability & Stochastic Processes, Linear Algebra, Comp. Arch, Multivariable Calc., Machine Learning, Neural Nets, Real Analysis, Numerical Analysis, Theoretical Statistics, Random Processes, Complex Analysis

Experience

Walleye Capital Boston, MA
Quantitative Research Intern @ Quantic *Jun 2023-Aug 2023*
- Equities alternative data for forecasting revenue and earnings from transactions and employment; Created medium frequency equity signals using linear models, clustering, and dimensionality reduction techniques
- Built analytics dashboard that ingests style factor and stock attribution data to monitor equity portfolio risks

Celona Cupertino, CA
Core Software Engineering @ ML Ops Team *Jun 2022-Aug 2022*
- Featurized cellular network packet data and converted packets into objects for use in ML pipeline
- Wrote ML-Ops data collection and featurizer microservices that integrate within the existing codebase

Unversity of California, Berkeley Berkeley, CA
Reader *Aug 2022-May 2023*
- Graded homework, exams and held office hours for the Algorithms and Machine Learning Courses

Simons Institute for the Theory of Computing Berkeley, CA
Research Associate @ Michael Jordan Group *Aug 2022-Present*
- Statistical inference on the gradients of a hidden convex function using weakly stationary data
- Proved consistency and martingale central limit theorem of iterate averaging estimator
- **Publication:** *Statistical Inference in Latent Convex Problems on Stream Data*
  Emmanouil-Vasileios Vlatakis-Gkaragkounis, Rohan Chauhan, Michael Jordan
  (To Be Submitted to ICML 2024)
- Advised by: Emmanouil-Vasileios Vlatakis-Gkaragkounis

Projects

Meta-Learning with Neural Optimizers | *Berkeley AI Research Lab*
- Combined diffusion transformers with meta-learning algorithms to create adaptable optimizers for different learning tasks; Optimizers trained have extreme accuracy 60% after one step
- Collaborated with Ilija Radosavovic (Ph.D. Candidate) in Jitendra Malik's Lab

Stochastic Matchings of Graphs | *Harvey Mudd College Mathematics*
- Applied abstract algebraic techniques to discover distributions of sets of graph matchings; Found empirical distribution of graph matching sets via simulation
- Presented poster at 2019 Southern California Discrete Mathematics Symposium: A Family of Graphs on Perfect Matchings
- Advised by: Michael Orrison

Bio-Medical Systematic Strategy
- Utilized FDA drug approval alt-data for making equity momentum signals
- Used neural network to combine signals together; Returned 40% over a three month time frame using a proportional portfolio weighting method

Skills

Languages: Python, Java, C, SQL, R, Go,
Tools: Pandas, statsmodels, sklearn, Matplotlib/Seaborn, git, Scipy, cvxpy, PyTorch, Excel, RegEx, Latex