

Ian Joffe

ianjoffe.github.io | ianjoffe@uchicago.edu | 323-434-3245

EDUCATION

University of Chicago | *September 2023 – May 2025*

M.S. student in Statistics

Completed Ph.D.-level sequence in applied statistics, enrolled in Ph.D.-level sequences in theoretical statistics and probability
Leads M.S. class in total coursework completed. Also planning to complete course requirements for Applied Math M.S.

Current research projects (aiming for submission for publication this year):

Summer 2024 - Present

- Quantifying the role of decreased sharpness on improved generalization capabilities of wider two-layer neural networks using theoretical bounds and experiments, supervised by Zhiyuan Li | [Repo](#)
- Solving for the dynamic interaction between statistical predictive models and markets betting on the same outcome
- Strategies for improving the calibration of LLMs on forecasting current events, including debiasing of latent representations and incorporation of proper scoring, intended for thesis | [Repo](#)

T.A. for Data 27100, UChicago's capstone project course for undergraduate data science majors

Fall 2024

- Managed teams of students working on a physics emulator for Fermilab, and a RAG chatbot for an environmental nonprofit

T.A. for CogSci 20002: Cognitive Models, teaching models in the context of neuroscience, psychology, and linguistics *Winter 2025*

University of California, Berkeley | *Graduated 2023*

B.S. in Electrical Engineering and Computer Science, Minors in Mechanical Engineering and Data Science

INTERNSHIPS

Data Science Intern at Visimo.ai

Summer 2023

- Deployed YOLO model for video object segmentation in internal R&D project, results were demoed to potential clients
- Developed and implemented novel application of self-supervised training for contracted deep learning project
- Performed comprehensive publications review on SOTA methods for LLM fine-tuning in jargon-heavy domains

Data Science & Analytics Intern at TransUnion – Model Governance Team

Summer 2022

- Built data analytics dashboard to monitor model outputs and automatically detect distribution shifts
- Researched historic output distributions and their shifts to contextualize them in macroeconomic trends and current events, and determine their significance to the company
- Used Spark to write an API to help coworkers access and alter databases

UNDERGRADUATE ORGANIZATIONS & LEADERSHIP

President, Project Manager at Political Computer Science

2019-2023

- As president oversaw 11 projects, new member recruitment, and social events. Increased member retention by over 50%
- PM for university-wide scientific poll to gather and dissect data on student sentiment. Also investigated differing use of social media ads by the 2020 Presidential Primary candidates, created NLP model to detect politically polarized speech

Project Manager at Sports Analytics Group at Berkeley

2019-2023

- PM for team using ML to develop new metrics and write reports offering strategy advice for Berkeley's baseball team
- Worked with the Denver Nuggets on project to quantify "brand health" through social media activity, other market data

Engineers Without Borders

2019-2023

- Compiled sanitation and health data for reports to national office for a team that implemented water pipelines in Panama

PROJECTS, SKILLS, & MISC.

- **Languages:** Advanced in Python, also strong in R, Java, C, SQL | **Tools:** Tableau, Solidworks, Git, Slurm
- **Libraries:** PyTorch, Jax, Pandas, Numpy, SciKit-Learn, Matplotlib, Plotly & Dash, Shiny, Weights & Biases, PyMC3, Penzai, SciPy, LightGBM & xgboost, beautifulsoup
- [Forked](#) and submitted PR to open source X/Twitter Community Notes repo lowering model loss by 10% and catching bug
- **Graduate Course Projects:** Literature [review and extension](#) on info theory for predictions markets; [Review and implementation](#) on the loss landscape complexity of phase retrieval; A [model](#) to estimate scaling laws from compute market data; [Review](#) on dynamical systems for stable RNN training
- **Personal Projects:** Programming, simulating, and solving the card-based word game Quiddler; Experimenting with algorithmic stock trading; 3D Printing objects for everyday use at home
- Private math tutor for elementary, middle, and high school students
- Attended NeurIPS, ACM Economics & Computation, and SIAM Mathematics of Data Science conferences
- Counselor at two-month overnight summer camp Hess Kramer (Summers 2019 and 2021)