Ian Joffe

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EDUCATION

University of Chicago | September 2023 – June 2025

M.S. student in Statistics • Starting research on generalization theory for interpolating two-layer neural networks this quarter

University of California, Berkeley | Graduated 2023

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

Coursework Includes:

Data Science: Probability & Statistics, Data Cleaning & Visualization, Linear Models, Multivariate Analysis, Time Series, Spectral Methods, Bayesian Methods, Machine Learning, Representation Learning, Deep Learning

Electrical Eng. & CS: Data Structures, CS Theory, Circuits & Computer Architecture, OS Design, Internet Architecture, Blockchain Mechanical Eng. & Physics: Statics & Dynamics, Electricity & Magnetism, Mechanisms, Mechanisms, Materials, Manufacturing Math: Computational Linear Algebra, Discrete Math, Real Analysis, Dynamical Systems, Optimization, Signals, Economics

WORK EXPERIENCE

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 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 economic trends and current events, and determine their significance to the company
- Used Spark to write an API to help coworkers access and alter databases

Research Apprentice at UC Berkeley School of Business

Fall 2021

- Cleaned, analyzed, and visualized big data about auditing firms to determine the success of technology adoption
- Verified accuracy of data sets computationally

Data Science Intern at You3Dit

Summer 2020

- Compiled reports on the factors that influence users' interactions with the company's website and services
- Wrote script to automate future data collection and evaluation

UNDERGRADUATE ORGANIZATIONS & TEAM PROJECTS

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 Democratic Primary candidates, developed NLP model to detect politically polarized speech

Project Manager at Sports Analytics Group at Berkeley

2019-2023

- Used machine learning to compute new statistics and wrote reports offering in-game strategy advice for the Berkeley baseball team two semesters as Cal Baseball PM
- Worked with the Denver Nuggets on project to quantify "brand health" through social media activity, other market data

Engineers Without Borders

2019-2023

- Joined team that developed, designed, and implemented water distribution system in Panama
- Compiled water quality and health data for a report to national organization office

PROJECTS, SKILLS, & MISC.

- **Languages**: Advanced in Python, Experience in R, Java, C, SQL | **Libraries**: Pandas, Numpy, Matplotlib, Plotly & Dash, Shiny, SciPy, SciKit-Learn, LightGBM & xgboost, PyMC3, PyTorch, Penzai | **Tools**: Tableau, Solidworks, Git, Slurm
- **Graduate Course Projects**: Literature review and extension on info theory for predictions markets; Review and implementation on the loss landscape complexity of phase retrieval; 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
- Counselor at two-month overnight summer camp Hess Kramer (Summers 2019 and 2021)