

Peter Zhang

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Education

University of California, Berkeley

Berkeley, CA

Computer Science, Economics, & ORMS B.A., Data Science Minor; 3.98 GPA

2020–2023

Coursework: ML+AI, Data Science, Computer Architecture, Probability, Stochastic Processes, Inference, Macro/Microeconomics, Behavioral Economics & Finance, Econometrics, Real Analysis

Activities & Societies: Voyager Consulting, Traders at Berkeley, Debate Society of Berkeley, The Daily Californian, Computer Science Mentors, Berkeley Economic Review, Upsilon Pi Epsilon

Research Experience

Berkeley Artificial Intelligence Lab

Berkeley, CA

Student Researcher

Jan 2022–Present

- Research scalable oversight with Ruiqi Zhong, advised by Profs. Jacob Steinhardt & Dan Klein
- Fine-tuned large language models for social science applications, e.g. measuring political slant.
- Built meta-dataset of 60+ interdisciplinary text mining tasks to assess hypothesis discovery.
- Improve and assess hypothesis discovery algorithm, achieving 5-100x speedups and improving insight.
- Experiment with novel applications of language models for collaborative forecasting and decision-making.

Moore Accuracy Lab

Berkeley, CA

Research Assistant under Prof. Don Moore

Sept 2022–Present

- Create and analyze surveys examining the effects of phrasing and incentives on confidence in judgement.
- Lead research project comparing the calibration of humans and language models on multiple-choice tasks.

Malmendier Group

Berkeley, CA

Research Assistant under Prof. Ulrike Malmendier

Jan 2022–Present

- Scrape, preprocess, and analyze dozens of datasets related to macroeconomics, CEO pay, business activity.
- Review literature, draft/propose sections, and copy edit for book proposal about experience effects.
- Apply language models to automate and improve annotations of business events.

Center for Effective Global Action

Berkeley, CA

Research Apprentice

Jan 2021–May 2021

- Developed an R Shiny/markdown showcase and drafted a set of guidelines for improving policy analysis.
- Assessed and identified weaknesses in 5 policy-relevant papers using R, Stata, Python, and L^AT_EX.

National Cancer Institute

Rockville, MD

Research Assistant

Jul 2019–Oct 2021

- Reformatted gene expression results from cancer drug trials for efficient, on-demand user query.
- Developed R Shiny dashboard with one-click, Electron interface, published as 1st-author in Bioinformatics.

National Institute of Standards and Technology

Gaithersburg, MD

Economics Research Intern

May 2020–Sep 2020

- Annotated 57 papers on resilience planning to assess the role of co-benefits in recent benefit-cost analysis.
- Published user manual & case study for Edge\$, decision-making software to help community leaders.

National Institute of Standards and Technology

Gaithersburg, MD

NLP Research Intern

Jun 2019–Aug 2019

- Designed rule-based Python scripts to preprocess corpora and construct subject-predicate-object tuples.
- Improved LDA topic modeling with root-and-rule preprocessing across multiple corpora for search tools.

Professional Experience

Susquehanna International Group

Bala Cynwyd, PA

Quantitative Trading Intern

Jun 2022–Aug 2022

- Designed and built NLP model to predict trading volume that was immediately used by traders in production.
- Completed rigorous finance/options curriculum; competed in mock trading and various strategic games.

Bill and Melinda Gates Foundation

Seattle, WA

Contract Consultant

Sep 2021–May 2022

- Synthesized 200+ publications and interviewed 11 topic experts on medical product quality in Africa.
- Led team of 5 to present 180-page report to 30 stakeholders which informed foundation investments.

Intel Foundry Services

Santa Clara, CA

Contract Consultant

Jan 2022–May 2022

- Led team of 5 to benchmark competitors and scrape financial data from investor reports.
- Built dashboard to store data, forecast trends, and analyze competitor customers, which is still in use today.

Uber Eats

San Francisco, CA

Data Analyst

Sep 2021–Dec 2021

- Segmented 2M eaters via a random forests, PCA, and clustering approach on massive behavioral dataset.
- Modeled effect of discounts on Eats pass conversion and provided strategy recommendations for each cluster.

Amazon Web Services

Arlington, VA

Software Development Engineer Intern

Jun 2021–Aug 2021

- Designed and developed a scalable, serverless tool to notify customers of service issues with a flexible API.
- Rapidly tested and iterated in an agile workflow, using Java/Typescript and AWS services (CDK/SQS/Lambda).

Publications

- **Zhang, P.**, Palmisano, A., Kumar, R., Li, M.C., Doroshov, J.H. and Zhao, Y., 2022. TPWshiny: an interactive R/Shiny app to explore cell line transcriptional responses to anti-cancer drugs. *Bioinformatics*, 38(2), pp.570-572.
- Helgeson, J.F. and **Zhang, P.**, 2020. Economic Decision Guide Software (EDGe\$) Online Tutorial: Wildland-Urban Interface (WUI) Case Study. US Department of Commerce, National Institute of Standards and Technology.

Teaching Experience

Berkeley CS 61A

Berkeley, CA

Tutor/Content Mentor

Sep 2020–May 2022

- Delivered 100+ hours of live instruction via section & lecture over 5 semesters to 30+ students.
- Produced 25+ worksheets for 100 mentors over 3 semesters and reduced overhead by several hours.

The Bronx High School of Science

Bronx, NY

Assistant Debate Coach

Aug 2020–May 2021

- Led 2 practices/week for 30+ debaters and drilled 1-on-1, qualifying to national championship.
- Judged and coached at 18 national, multi-day tournaments, providing detailed feedback to 100 competitors.

Foundation for Advanced Education in the Sciences

Bethesda, MD

Teaching Assistant

Jan 2021, Mar 2021

- Taught two sessions of a 3-week introductory Python course with 15 graduate students at the NIH.
- Facilitated Slack discussions, held 10+ 1-on-1 office hours, and graded student assignments.

Skills

Languages: Python, R, Java/Kotlin, JS/React, \LaTeX , SQL, functional programming, HTML5/CSS

Libraries: Numpy/Pandas, PyTorch/Tensorflow, Huggingface, Dash/Shiny, Selenium/BeautifulSoup

Tools: Git/Terminal, Slurm, Azure/AWS, WordPress, Electron

Awards

Citadel West Coast Datathon, 3rd Place

Apr 2022

UC Berkeley Leadership Award; 3x Recipient

Jul 2020, Aug 2021, Aug 2022

DSS x NIB Datathon for Social Good, 1st Place

Nov 2021

USA Computing Olympiad, Platinum Division

May 2020