Peter Zhang

⌂ 2243 Dwight Way, Berkeley, CA 94704
📞 (240) 994-2204 ✉ petez@berkeley.edu ⌾ petezh 🖥 www.peterzha.ng

Education

University of California, Berkeley — **Berkeley, CA**
Computer Science, Economics, & ORMS B.A., Data Science Minor; 3.97 GPA — 2020–2024
Coursework: DS&A, Computing Theory, 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, CSM, UPE

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 600+ interdisciplinary text mining tasks, submitted to ICML '23.
- 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 LaTeX.

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., Doroshow, 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 World Finals Data Open, 4th Place	Dec 2022
Citadel West Coast Data Open, 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