Jeffrey Huang

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US Citizen - No sponsorship required

Education

University of Illinois Urbana-Champaign - B.S Statistics & Computer Science **(2026)**

- GPA: 3.97
- Chancellor's Scholar
- Relevant coursework: Database Systems, Bayesian Analysis, Time Series, Data Mining, Statistical Modeling, Applied Machine Learning with Econometrics, Data Structures and Algorithms, System Design

Skills

- Python, C++, R, SQL, Javascript (React, Next.js)
- Pandas, Pytorch, Scikit-Learn, Statsmodels, GeoPandas, Numpy, R-Shiny, Matplotlib, Seaborn
- Git version control, HPC, MongoDB, Google BigQuery, Docker, Agile, Dashboarding and HCI

Work/Research Experience

Software Engineer Intern at Geni **(May 2024 - Present)**

- Led development of key product features integrating LLMs and generative AI in an early-stage EdTech startup, contributing to paid pilots across multiple schools with a projected $120,000 ARR.
- Iteratively improved prompt engineering for AI processes
- Maintained web-app functionality using Next.js framework with Prisma ORM and MongoDB database

Undergraduate Research Intern at NSF I-GUIDE **(Apr 2023-Aug 2024)**

- Developed features for CyberGIS-Compute Python package to help researchers access HPC resources, presented to graduate students and professors in the CyberGIS lab
- Set up Docker container and SLURM environment for allocating GPU resources in university HPC cluster
- Developed widgets to perform spatial analysis of critical infrastructure at risk in dam inundation zones

Contributor at Econometrics Data Lab **(Jan 2024-May 2024)**

- In a team of six, built packages in Python and R for price optimization and counterfactual estimation
- Implemented OLS, PCA and LASSO in machine learning model based off of Dr. Marcelo Cunha Medeiros'academic paper on factor adjusted regularized treatment evaluation (FarmTreat)

Intro to CS Honors, Project Manager **(Jan 2023-Present)**

- Managed groups of 4-6 students in data science / software development projects using Git and Agile development methodology

Projects

Apple Stock Sentiment Time Series Analysis **(Spring 2024)**

- Ran SQL queries using Google BigQuery on the Global Database of Events Language and Tone (GDELT) Global Knowledge Graph (GKG) with 3.6 trillion datapoints
- Studied relations between daily sentiment and tone metrics and Apple (AAPL) stock open and close prices
- Ran ARIMA time series forecasting on collected sentiment and stock data using the Python sktime package

Credit Card Fraud Detection Dashboard **(Fall 2023)**

- Trained and tested cost sensitive machine learning algorithms on imbalanced credit card fraud dataset
- Developed dashboard for fine-tuning model hyper-parameters and to help direct future model development

Pathfinding Algorithm Analysis **(Fall 2023)**

- Implemented A* pathfinding algorithm in C++ with novel heuristics
- Tested on OpenStreetMap road network data imported from OSMnx Python package