

Education

University of Texas at Austin

B.S. IN COMPUTER SCIENCE AND MATHEMATICS (DOUBLE MAJOR)

• Relevant Coursework: Neural Networks, AI, Data Mining, Natural Language Processing, Software Engineering, Stochastic Processes, Game Theory

EXTRACURRICULARS: TEXAS SPACE LABORATORY - DATA PIPELINE TEAM LEAD

- Student-driven research group dedicated to designing and building hardware and software for space missions, in conjunction with NASA.
- Created full-pose estimation models ready for flight hardware along with streamlined data-generation and training pipeline

GPA: 3.91 (Honors)

Aug. 2018 - May 2022

Feb. 2020 - May. 2022

Work Experience

Google

SOFTWARE ENGINEER

- Worked in health vertical within Search to drive user growth and add quality information to search results page for health-related queries
- Wrote data pipelines incorporating web mining, machine learning, and mathematical heuristics to synthesize information from large 3rd-party datasets, which resulted in >600k new health care practitioners in Google maps/search results and insurance acceptance information to >400k new locations
- Led engineering team on critical hotline OneBox project, scoping out technical design, timelines, and delegation of work. Project involved rebuilding end-to-end infrastructure of main team feature from scratch in order to improve scalability and engineering efficiency, and ultimately launched in >150 locales.
- Piloted integration with Google Search LLM for health queries, experimenting with techniques to ensure factuality and completeness in the medical space.
- Rapidly iterated on 3-4 projects at a time, consistently delivering high quality C++ and Python code with >20k new lines of code written per year.

San Francisco, CA

Aug. 2022 - Present

Vana (Startup)

SOFTWARE ENGINEERING INTERN

- Developed data collection processes and 3rd-party integrations on web app that were used by thousands of people
- Used React, Hasura, RabbitMQ, Lambdas, and machine learning in rapid development of changing business objectives
- Created architectural designs for various components in the Vana web app to ensure scalability in the future

San Francisco, CA

Aug. 2021 - Jun. 2022

Microsoft

SOFTWARE ENGINEERING INTERN

- Built, tested, and deployed Outlook Add-in that assists hundreds of customer support issues
- Used Azure Data Explorer, React, and machine learning in continuous delivery of quality application features
- Presented weekly demos to multiple service teams and customers to gain feedback and prioritize feature development

Seattle, CA

May. 2021 - Aug. 2021

Projects

Predicting Stocks using Twitter Sentiments | Python (scikit-learn, pandas, nltk), Twitter API

- Utilized sentiment analysis from thousands of tweets to correlate the public opinion of a company with their stock prices
- Used machine learning algorithms to predict day-to-day changes in stocks taking into account tweet information and stock variance

Portfolio Website | React JS, Bootstrap, Github API

- Personal portfolio website that I created using React and Bootstrap
- Includes API calls to github that dynamically generates a display of my pinned repositories

Measuring Repetition in Speeches using LZW | Python, RStudio

- Analysis of how repetition has increased over time in US presidential speeches
- Implemented the Lempel-Ziv-Welch compression algorithm in order to measure repetition of words and phrases

Publications

A Pipeline for Vision-Based On-Orbit Proximity Operations Using Deep Learning and Synthetic Imagery

IEEE AEROSPACE CONFERENCE 2021

Mar. 2021

Real-Time, Flight-Ready, Non-Cooperative Spacecraft Pose Estimation Using Monocular Imagery

AAS SPACE FLIGHT MECHANICS MEETING 2021

Feb. 2021

Skills

PROGRAMMING LANGUAGES

- Python (numpy, pytorch, tensorflow, scikit-learn, pandas), Java, C++, Typescript, C#, SQL, x86, R

WEB/MOBILE DEVELOPMENT

- Android Studio, Node JS, React, HTML, Bootstrap, Git, LaTeX, .NET, AWS (EC2, S3, Lambda, SQS, SNS), Azure, Firebase