

SHUAI ZHOU

Berkeley, CA

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EDUCATION

University of California, Berkeley

Aug. 2020 – May. 2024

B.A. Computer Science

Berkeley, CA

Relevant Coursework: Designing Information Devices and Systems, Data Structures, Computer Architecture and Machine Structures, Discrete Mathematics and Probability Theory, Cloud Computing, Full Stack Development, Multivariable Calculus, Linear Algebra, Abstract Algebra, Probability and Random Processes, Optimization Models, Computer Security, Intractable Problems, Artificial Intelligence, Computer Graphics

EXPERIENCE

Verizon Communications Inc.

June. 2023 – Aug. 2023

Software Engineer Intern

White Plains, NY

- Incoming summer 2023 intern in White Plains, New York.

Picoyune LLC

Jan. 2022 – Sep. 2022

Software Engineer/Product Management Intern

Berkeley, CA

- Implemented data analytics capability for users to visualize and understand mercury level readings from their device.
- Built the GUI for users to connect their mercury sensor to their computer for control, with functionalities including setting timezone, resetting device, offloading data, rendering data, and more.
- Spearheaded the customer discovery for the new product by conducting research and interviewing within the industry.

SpiderSmart Learning Center

Jan. 2020 – July. 2020

Teacher

Berkeley, CA

- Taught competition-level mathematics, with subjects including algebra, geometry, combinatorics, and number theory, as well as competitive Science Bowl topics including biology, chemistry, physics, and earth science.

Rice University CAAM

Aug. 2019 – May. 2020

Researcher under Professor Illya V. Hicks

Houston, TX

- Conducted research in graph traversal heuristics at Rice University's Department of Computational and Applied Math.

PROJECTS

Haste Street Capital | Model trading assets using the Breakout Trading Strategy

Stack: Python, QuantConnect

- Quantitative model trading assets through the Breakout Trading Strategy by initiating a trade when asset price exits usual range with signs of future volatility increase.

Stock Beta-Predictor | Prediction of asset prices using beta

Stack: Python

- Predicts stock prices through exploratory data analysis of beta values by regressing against volatility.

Asset Trading Sim | Simulation of trading assets through a pairs trading strategy

Stack: Python

- Implements the mean-reversion theory with the high alpha pairs trading strategy of hedging against market movements.

ML Asset Predictor | Utilizes logistical regression and SVM models to predict asset prices

Stack: Python

- Trains logistical regression and SVM models on historical data to predict future prices of various stocks.

Cal Me Maybe | App for night-time safety in Berkeley

Stack: JavaScript, Expo, React Native, AWS

- Facilitation of verified users finding groups of other users to safely travel alongside at night in Berkeley.

2D Smoke Sim | Realistic smoke simulation with game effects

Stack: JavaScript, three.js

- Simulates realistic smokes with implemented vorticity confinement, buoyancy, shaders, heat mapping, and game effects.

kudouBot | Discord bot for server enhancement

Stack: Node.js

- Offers music, games, custom interactions, and other functionalities with more than 2,000 users.

lcsStocks/vctStocks | Discord bot for emulating Fantasy Sports

Stack: Python

- Esports rendition of Fantasy Sports, with a fully functional point system alongside weekly-updated stats, trading, etc.

TECHNICAL SKILLS

Software: Python, Java, C++, C, JavaScript, Golang, PostgreSQL, MATLAB, R, RISC-V Assembly, Docker, Git

Design: Adobe Photoshop CC, Adobe Premiere, Tiled

Languages: English (native), Mandarin (native), French (beginner), Japanese (beginner)

AWARDS/ACTIVITIES

• F=ma Physics Competition – Top 200 • American Invitational Mathematics Examination – USAMO index: 194.5 • Princeton University Mathematics Competition – Algebra: 33rd • Physics Unlimited's Explorer Competition – Quantum Mechanics: bronze; Statistical Mechanics: honorable mention • IMC Trading Prosperity Challenge • ICPC