Rixiao Zhang

1207 Saint Elizabeth Concord, California 94518 - 9258444091 - rixiaozhang@berkeley.edu

Education

University of California, Berkeley   December 2021
Bachelor of Science
- 3.6 GPA
- Major in Electrical Engineering And Computer Sciences
- Relevant Coursework: Data Structures, Efficient Algorithms & Intractable Problems, Software Engineering, Computer Architecture, Computer Security, Optimization Models in Engineering, Robotics.

Skills

- **Languages**: Solidity, Rust, C, Go, Python, Java, Javascript
- **Libraries**: Ether.js, Web3.js, Solana-Web3.js, Scikit-Learn, Numpy, Pandas
- **Frameworks:** Hardhat, Anchor, React.js, Mocha, Chai

Experience

University of California, Berkeley   January 2020 to May 2020
Research Assistant
- Helped with the data cleaning and data labeling for a research project at the School of Information, Berkeley. Constructed the very first new dataset of fine-grained laughter annotations on top of the existing AudioSet. The final paper was submitted to the 2021 International Conference on Acoustics, Speech, and Signal Processing (ICASSP), currently under review.

Projects

- **Project Twitter:** A fully functional decentralized Twitter-like application where anyone can use their wallet to connect and start publishing tweets. Logged in users will be able to send tweets up to 280 characters. They will also be able to add an optional "topic" field to help search for tweets. Built on Solana blockchain using Anchor and Vue frameworks.

- **Project Dropbox**: An end-to-end encrypted file sharing system. Designed and implemented a file sharing service similar to Dropbox that protects user privacy in the Go programming language. Used RSA for public key encryption and digital signature verification, and CFB Block Cipher mode with SHA-512 HMAC for data encryption to provide secure data sharing between users.

- **Project Numpy:** A library implemented in the C programming language for the Python programming language, adding support for large, multi-dimensional arrays and matrices, along with some basic high-level mathematical functions to operate on these arrays. Used cache blocking, SIMD, and multi-thread to speed up operations like matrix multiplication and matrix power. Multiplication speedup: 116x, Power speedup: 1728x, Comprehensive speedup: 107x. Ranked in the Top 15% of the class.

- **Spam/Ham Classification:** A discriminative learning model used to classify emails as spam or ham. Trained Logistic Regression classifier with Batch and Stochastic Gradient Descent. Used Pandas to pre-process data, Numpy and Scikit-Learn for main algorithmic implementation, and Matplotlib to visualize results. The model's training accuracy is 91.4% and the test accuracy is 88.5%.

Websites

- https://github.com/rixiaozhang
- https://www.linkedin.com/in/rixiao-zhang-b41728220