Yiwen Zhou

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EDUCATION

University of California, Berkeley Expected Graduation: May 2023

BA, Double major in Computer Science and Applied Math (concentration: Statistics) GPA: 3.85 / 4.0

Relevant Courseworks:

Data Structures, Computer Architecture, Algorithms, Computer Security, Database Systems, Operating Systems, Artificial Intelligence, Machine Learning, XR, Discrete Math, Probability, Linear Algebra, Stochastic Processes, Numerical Analysis

Publications:

Zhou, Yiwen, et al. "Variants and Applications of Generative Adversarial Networks." *2021 2nd International Conference on Big Data & Artificial Intelligence & Software Engineering (ICBASE)*, 2021, pp. 483-486.

Honors and Awards:

International Math Modelling Contest 1st place in Canada and international Honorable Mention award 2018

Canadian Fermat Math Contest national honor roll, ranked top 0.12% 2018

EXPERIENCE

Stealth Mode Startup – Bay Area, California May 2022 – Aug 2022

Software Engineer Intern, Backend

- Co-developed a push-notification system by implementing efficient RESTful APIs and database interactions to expedite the code review process by 1-2 hours per pull request
- Created the first Backend Kubernetes cronjob to notify admins about pending requests on their personalized schedule; set up a template for the team to reference on future similar tasks, and held a knowledge sharing session with the Backend team
- Led the third-party integration project via active third-party communication, integration document editing, REST endpoints implementation to receive signature and slides from third party, and automation for generating and sending dynamic PDFs to third party
- Contributed to other large-scale web application development projects such as e-signature integration and transactional emails; performed unit/integration/end-to-end testing, error handling, and monitoring
- Fixed and optimized the Backend testing structure and framework

Wuxi YiSuan Technology Co., Ltd. – Wuxi, China June 2021 – July 2021

Research Intern

- Contributed to the design of the secret sharing schemes and secure share computing protocols for privacy-preserving data processing through research on Secure Multi-Party Computation
- Contributed to the protocol suite design for generating private key shares and distributing them to signers in the threshold SM2 signature scheme
- Directly contributed to C code algorithm optimization; sped up the Berlekamp-Massey algorithm by 30x

PROJECTS

Pac-Man | Python Developed an AI agent to play the Pac-Man game; applied an array of AI techniques, including informed search algorithms (A* search), probabilistic inference, and reinforcement learning algorithms

An End-to-End Encrypted File Sharing System | Go Designed and implemented a secure file sharing system that is similar to Dropbox by applying cryptographic primitives such as RSA encryption and digital signatures, AES-CBC encryption, and HMAC

Gitlet | Java Designed and implemented a version control system that has basic features of Git; applied various data structures and gained extensive experience in Object-Oriented Programming

SKILLS

Languages: Python, Java, C, SQL, Go, GraphQL, JavaScript, HTML, CSS, Assembly (x86, RISC-V)

Frameworks & Packages: Flask, NumPy, Pandas, Scikit-learn, Spark

Workflow & Tools: Git/GitHub, Kubernetes, Docker, AWS, Pytest, Linux, Bash