ELIJAH FANG

github.com/efang006 ⋄ (951) 403-3119 ⋄ elijah.fang@outlook.com

EDUCATION

University of California, Riverside *December 2024*
Bachelor of Science, Computer Science with Business Applications

- Founded the Hmong Student Association at UCR and led the organization from 2021 to 2023, hosting cultural events in collaboration with other UC's.
- Fostered a close-knit community for Hmong students pursuing higher education as a first generation college student.

PROJECTS

PyLucene-based Search Interface for Reddit Data *August 2024 - December 2024*
CS 172 - Information Retrieval

- Designed and implemented a search interface for Reddit data using PyLucene, parsing large JSON datasets and indexing millions of posts for efficient querying.
- Developed a robust web-based search interface with Flask, enabling users to retrieve results ranked by relevance and timestamp.
- Optimized data indexing and query processing to handle large-scale Reddit datasets, ensuring high performance and scalability.

User and Group Management System with Security Hardened Code *August 2022 - May 2023*
CS 165 - Computer Security

- Designed and implemented a modular user and group management system, capable of dynamically handling different user types and their relationships with groups.
- Employed secure programming practices, such as boundary checks, secure memory allocation, and safe string manipulation functions, to mitigate common vulnerabilities like buffer overflows and type confusion.
- Utilized AFL (American Fuzzy Lop) to conduct fuzz testing, generating diverse and unexpected input data to uncover potential crashes, memory leaks, and other vulnerabilities.
- Coordinated team efforts through regular communication, task delegation, and progress monitoring to maintain alignment with project goals.

EXPERIENCE

zyBooks *February 2021 - Present*
Support Specialist

- Collaborated with account executives and instructors to set up and streamline STEM curricula textbook integrations.
- Partnered with platform engineers and authors to enhance textbook materials and improve the overall learning experience.
- Provided support to hundreds of students and instructors weekly, resolving account management issues and gathering feedback to address platform concerns effectively.

TECHNICAL SKILLS

Languages	TypeScript, JavaScript, SQL, C++, C, C#, Python, Java
Web Technologies & SDLC	HTML, CSS, Flask, Unit Testing, Github
Software & Tools	Firebase, PostgreSQL, Arduino/PlatformIO,

RELATED COURSEWORK

Data Structures and Algorithms, Database Management Systems, Web Programming

Computer Security and Information Retrieval, Programming Languages, Discrete Mathematics

Project Management and Simulation, Logic Design and Embedded Systems