Joey Zhu

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Education

University of California, Berkeley — *Berkeley, CA*

B.A. Computer Science — *Aug. 2019 - Dec. 2022*

CS (3.5 GPA) Data Structures, Computer Architecture, Information Systems, Algorithms, Cybersecurity, Machine Learning

Physics (3.7 GPA) Statistical Physics, Analytic Mechanics, Quantum Mechanics, Electrodynamics

Skills

Programming Python, Java, Javascript, TSX, React, HTML, CSS, C++

Tools and Frameworks AWS, Github, Spring Boot, RESTful APIs, Unix, Docker

Work Experience

Amazon — *Seattle, WA*

SDE Intern — *Jan. 2022 - May 2022*

- Took ownership of fully designing, developing, and deploying a form allowing internal users to request access to legal documents, replacing inconvenient ticketing escalations with automatic email notifications; saved 3 hours of Legal Organization work per month
- Implemented feature backend by instantiating AWS microservices, adding new RESTful APIs, and making Cloudwatch monitors
- Unified three separate error displays in frontend packages to inherit the same component with different properties

NimbleRx — *Redwood City, CA*

SWE Intern — *May. 2022 - Aug. 2022*

- Designed and implemented pipeline to compose thousands of pharmacy data analytics entries per day, triggered by Iterable SMS webhooks
- Accelerated event-driven, business-side software batch APIs by 4x using ExecutorService to synchronize user profile data with other services
- Refactored Spring Boot infrastructure configurations from XML to Java annotations, spanning over 100 files in the codebase

Lawrence Berkeley National Laboratory — *Berkeley, CA*

Student Assistant (Accelerator Tech and Applied Physics Division) — *Aug. 2022 - Nov. 2022*

- Designed MadX static language parser by generating a YAML file from a traversal of the interpreter's REPL environment, bypassing previous complex Regex and AST approaches
- Use static parser to convert a repository of CERN particle accelerator input files and test benchmarks to input files for Berkeley Lab simulations

Projects

End-to-End Encrypted File Sharing System — *Berkeley, CA*

Implement a secure file-sharing system on an exposed database — *Nov. 2022*

- Coordinated with project partner to write authentication and REST APIs, and write test cases to cover 22 different attacks
- Implemented support for simultaneous sessions and permission hierarchies, access invitations, and secure and efficient file revocations with UUIDs and PK encryption
- Implemented comprehensive message logging with error checks to speed up debugging process

Pentaquad (Web Game) — *Home*

https://github.com/np-eazy/Pentaquad — *Apr. 2023*

- Initiated and planned the full project timeline and milestones for Alpha and Beta demos
- Designed and implemented an engineless, React-based game client, oriented towards complex structures and strategic gameplay
- Maintained code changes on a Github repository with heavy emphasis on clean variable naming and flexible infrastructure
- Designed HTML Canvas graphics infrastructure with future adaptability to high-performance rendering pipelines