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   Javascript, TSX, HTML, CSS, Python, Java, Golang, Rust
Tools and Frameworks   React, Spring Boot, Object-Oriented Programming, Software Development Life Cycle, DynamoDB

Work Experience

Amazon   *Seattle, WA*
SDE Intern   *Jan. 2022 - May 2022*

- Led the design, development, and deployment of a form feature allowing internal users to request access to legal documents
- Replaced inconvenient ticketing escalations with automatic email notifications; saved 3 hours of Legal Organization work per month
- Unified three separate error displays in frontend packages to inherit the same component with different properties
- Implemented React UI user input form and CSS Email template from ground up to mirror Amazon's general UI theme and spacings

NimbleRx   *Redwood City, CA*
SWE Intern   *May. 2022 - Aug. 2022*

- Used Docker local testing and AWS CloudFront dashboards to monitor SQS throttles in production code changes
- Designed and implemented pipeline to compose thousands of 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 to automate transcription of CERN to LBNL particle accelerator code
- Introduced REPL approach to bypass all casework and granularity of original Regex/AST implementation
- 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, Javascript and React-based game client, oriented towards complex structures and strategic gameplay
- Designed HTML Canvas graphics infrastructure with future adaptability to high-performance rendering pipelines