Huy Tran

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Technical Skills

Languages: Java, C, Rust, Go, Python, JavaScript, TypeScript, HTML/CSS, SQL, GraphQL
Frameworks/Libraries: React, Node.js, Express.js, Next.js, Spring Framework, Project Reactor, FastAPI
Developer Tools: Git, GitHub, BitBucket, Jira, Confluence, Docker, Amazon Web Services

Education

University of California, Berkeley — **Berkeley, CA**
Bachelor of Arts, Double Major in Computer Science and Data Science (GPA: 4.00) — *Expected May 2024*

Relevant Courses: Data Structures, Computer Architecture, Discrete Math, Efficient Algorithms, Database Systems, Software Engineering, Computer Security, Operating Systems, Principles and Techniques of Data Science, Probability for Data Science

Experience

Incoming Software Engineer — **San Francisco, CA**
Atlassian — *Starting May 2023*

Academic Student Employee — **Berkeley, CA**
UC Berkeley EECS Department — *August 2022 – Present*

- Provide academic support for UC Berkeley's upper division Efficient Algorithms course of over 600 students
- Collaborate with student instructors to provide students with accurate grades for assignments and exams
- Guide over 30 students per week through algorithm problems and CS theory topics during Office Hours
- Enhance clarity of algorithm implementation assignments by testing and debugging Jupyter Notebooks

Full Stack Software Engineer — **Mountain View, CA**
Atlassian — *May 2022 – August 2022*

- Leveraged reactive architecture to create a responsive and scalable notifications microservice for Confluence
- Decoupled email settings from Monolith by designing a new REST API with Spring and Project Reactor
- Reduced latency of queries by 20% by optimizing the DynamoDB schema for critical access patterns
- Modernized the email settings page by creating React components that follow the Atlassian Design System
- Integrated the notifications service with the frontend page by developing a GraphQL API with Apollo Client
- Maintained 100% test coverage by consistently writing unit and integration tests for new features

Projects

PintOS

- Collaborated with a team of four to enhance an x86 Operating System legacy codebase written in C
- Enabled execution of user programs by creating process control and file system calls (e.g. fork, exec, open)
- Improved program performance by developing multithreading with user-level threads and synchronization
- Refined filesystem by implementing file growth and subdirectories, inspired by the Berkeley Fast Filesystem
- Doubled kernel performance by designing a buffer cache with the Clock algorithm replacement policy

Upsilon Pi Epsilon Website

- Overhauled the official website for UC Berkeley's CS Honor Society with Next.js and Tailwind CSS
- Improved UX for scheduling professional services by redesigning the scheduler to be more clear and intuitive
- Enhanced user accessibility by redesigning pages to adhere responsive web design principles
- Pioneered the creation of a REST API with FastAPI to dynamically retrieve and display member data

Gitlet

- Developed a lightweight version control system in Java with Git features (e.g. commit, checkout, merge)
- Improved traversal through commit objects by structuring the commit history as a directed acyclic graph
- Optimized detection of repository changes by integrating the SHA-1 hash function to encode file contents