

Zachary Jicha

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Education

University of California, Santa Cruz

Pursuing B.S. in Computer Science, Mathematics Minor; GPA: 3.99

Sep 2017 – Present; Fourth Year Student; Expected Graduation June 2021

Experience

Northrop Grumman, Redondo Beach, CA

Software Engineering Intern June - August 2020

- Provided strategic value to the EPS-CAPS team by independently completing features in the project's largest portion of tactical enhancements, including new UI capabilities and HQL database interfaces. Primarily worked with Java.
- Wrote documentation and unit tests for my work using mocking and dependency injection to allow for future expansion of the feature set.
- Adhered to scrum principles and leveraged my team members' design knowledge when needed. Presented work to and answered questions from the customer professionally.
- Quickly adapted to a remote work environment and remained flexible throughout the internship.

Projects

- midiPARSESEC
 - Designed to parse midi files and communicate over serial to arduino using custom message protocol to prioritize speed on arduino real time OS. Utilizes interrupts to precisely pulse stepper motors to play the midi files. Developed in Go and C.
- Distributed Key-value store (code available upon request)
 - Utilizes hashing to split data into several shards, with replication across several machines in each shard. Uses causal consistency to prioritize availability and achieve eventual consistency between replicas. REST APIs used to handle HTTP communication. Developed in Go for Distributed Systems group project.
- Collect App
 - Scan receipts with phone camera and split the bill line by line with others. Group project using scrum as an agile framework. Developed in Swift for Software Design Project.
- HTTP Server and Loadbalancer (code available upon request)
 - Multithreaded HTTP server and loadbalancer, with loadbalancer handling connections to several servers. Wrote a suite of tests using Bash used by entire class. Developed in C for Computer Systems Design class, no HTTP libraries

Relevant Courses

Computer Science: Distributed Systems, Computer Security, Parallel Programming, Web Apps, Software Design Project, Artificial Intelligence, Natural Language Processing

Mathematics: Graph Theory, Number Theory, Cryptography, Numerical Analysis

Skills

- 7 years of programming experience and collaboration using Git
- Primary languages: Go, Java. Also knowledgeable in C, C++, Python, Bash; Windows, Linux