Gary Fishell

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Experience

Cloud Software Engineer, Hewlett Packard (HP) – San Diego, CA   July 2022 – Present
- Simplified printer communication logic across 3 printer generations by architecting a JSON message passthrough service
- Identified gaps in user data synchronization and created a Resque job that validates user data with external APIs
- Analyzed validation errors with external APIs and created automated fixing jobs to call these APIs for data resynchronization
- Supported building a multi-billion dollar printer ink SaaS by implementing core business logic in a Ruby on Rails service
- Reduced printer to service latency by 50 percent by introducing dedicated processing nodes to handle higher priority traffic
- Achieved faster development times by leading effort in deploying a new Java Spring Boot service to Azure DevOps
- Improved SonarQube test coverage by 70 percent by refactoring JUnit tests to be more robust
- Participated in partial on-call duties to monitor and triage production level defects and upticks in service degradation
- Transformed high-level system architecture requirements into AWS infrastructure using Terraform and optimized business-critical systems through AWS resource scaling for peak usage hours

Software Engineer, Northrop Grumman – San Diego, CA   December 2018 – July 2022
- Improved application usability by refactoring a mission critical Java Swing interface into a web UI using React/Redux
- Enhanced radio communication by saving embedded device queries to a database and making them viewable in a web UI
- Optimized developer workflow and integration testing by using Docker containers and presented findings in a webinar
- Led backlog grooming, customer demonstrations, sprint planning, and daily standup as apprentice scrum master
- Reduced customer wait time through onsite triaging of release candidate issues
- Implemented the ability to control multiple devices from one touch-screen tablet through a Java Swing UI
- Automated integration testing by 50 percent through utilizing Eggplant and Selenium Web Driver testing frameworks for several web-based components

Projects

Subscription-Based Content Platform: NestJS, NextJS, React, Typescript, Redis, MongoDB   April 2024
- Created a React Component for admins to chat with users using WebSockets to enable real-time communication
- Orchestrated creation of new backend endpoints to facilitate admin-to-user messaging
- Identified payment model improvements and revamped frontend, backend and MongoDB schema to support a new subscription model

Graffiti Incident Tracker System: HTML, Bootstrap, Flask, SQLite   May 2020
- Developed a graffiti incident tracking web application which utilizes a RESTful API using Flask
- Utilized Google Maps API to provide geospatial awareness of graffiti incidents
- Built a graffiti incident reporting form which allows users to publish findings to an SQLite database
- Implemented multi-role login system utilizing Flask-Login for session management

CHIP-8 Interpreter: C++, Simple DirectMedia Layer (SDL)   December 2021
- Created a CHIP-8 interpreter to virtualize games ran on the Telmac 1800 8-Bit microcomputer
- Formulated a system architecture to replicate CHIP-8 hardware (Registers, memory, and opcodes)
- Utilized the Simple DirectMedia Layer (SDL) library to replicate sound, display, and input
- Designed a Debugging User Interface to display system level information

Skills

Backend: Java, Spring Boot, Ruby on Rails, TypeScript, Nest.js, Python, Flask, C++, SQL, MongoDB, Redis, AWS
Frontend: JavaScript, React.js, NextJS, Java Swing, HTML/CSS, Sass, Bootstrap
Misc: Selenium Web Driver, Linux/Unix, RSpec, JUnit, Jenkins, Azure DevOps, Jira, Git, Unity

Education

San Diego State University   September 2017 - December 2020
Bachelor's, Computer Science, *Summa Cum Laude*