John Y. Rodgers

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Experience

Viasat San Diego, CA
Software Engineer August 2018 - November 2023

- Reduced time to build/test application suite by >3 hours through proposing and directing an intern project that implemented modern **CMake** patterns, **Docker** image patterns and upgrading build tools.
- Served as **Scrum Master**, while primarily a developer I also streamlined project workflows, managed tasks in **JIRA** and collaborated with leaders across teams to drive successful project outcomes.
- Developed **C++** library to manage **UDP** and **OpenSSL** secured **DTLS** connections, provided both client/server roles, and **multi-threading** for heartbeat monitoring and packet queuing.
- Reduced time to complete **code reviews** by revitalizing processes, empowering developers of all skills to actively contribute/learn from every PR, integrated **GitHub** tools to streamline review process.
- Recovered data from failed Docker/Kubernetes containers by creating "black box" files, leveraging multiple threads, **circular buffers**, **IPC**-based communication, and remote **volume store**.
- Lowered dependency on individual expertise by initiating peer education program, conducting needs assessments, mobilizing subject matter experts, and creating a comprehensive video knowledge base.
- **Streamed** monitoring/analysis data from **Docker**/**Kubernetes containers** with multi-client to server log/metric publishing microservice leveraging **gRPC**, **Fluent Bit**, **Kafka**, **Grafana** and **Splunk**.
- Boosted technical proficiency by starting junior developer skill-up sessions resulting in a knowledge base of **Zettelkasten** and **Diátaxis** based notes populated with **C4**, **Sequence**, and **State** Diagrams.
- Optimized deployment process by regularly using **Jenkins** to **deploy**, **debug** and **administer** Linux-based VMs used to develop, test, and deploy Docker/Kubernetes containers.
- Delivered critical **on-call technical support** ensuring rapid issue resolution and system reliability, demonstrating a deep understanding of system architecture and cross-team product integration.
- Optimized **CMake** build process by developing Docker/Kubernetes container synchronizing artifacts stored in Perforce, leveraged **Bash** for scripting, volume mounts for file transfer to host.
- Eliminated **cybersecurity** risks by monitoring vulnerabilitites using **Blackduck** and **Security Scorecard**, JIRA tracking of resolution, leading to a perfect security assessment for the project.
- Regularly used complex **regular expressions** for file identification by name and content with tools such as **find**, **ripgrep**, and **ag**, applied techniques for mass text editing in **Vim** and **Obsidian**.

Viasat San Diego, CA
Software Engineer Intern June 2017 - August 2017

- Collaborated with an interdisciplinary team to consolidate multiple hardware testing tools into a single server rack, automating modem testing processes.
- Created equipment tests using C++, automated tests and reporting of results using **Python**, ensuring seamless communication and compatibility between devices.
- Performed extensive debugging and optimization of the automated system, ensuring robust performance in diverse operational conditions.

United States Navy
Information Systems Technician 2007 - 2012

- Configured, maintained, and monitored ship-wide **local-area network** including **servers**, **firewalls**, **routers**, and **switches**.
- Supervised five-member team of diverse backgrounds and life experiences through daily operations by focusing on respect, communication, and motivation.

Education

University of California San Diego
Jacobs School of Engineering
BS in Computer Science

- Coursework: Object-Oriented Programming; Advanced Data Structures; Theory of Computability; Software Engineering; Computer Architecture; Artificial Intelligence: Search & Reasoning; Computer Operations & Product Engineering