John Y. Rodgers

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EXPERIENCE

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

- Designed and owned **C++** library for managing **OpenSSL**-secured **DTLS** connections, including client/server roles and **multi-threading** for heartbeat monitoring and packet queuing.

- Cut application suite build/test time by over 3 hours by initiating and guiding an intern project. Implemented contemporary **CMake** and **Docker** image patterns and upgraded build tools for efficiency.

- Streamlined project workflows, managed tasks in **JIRA**, facilitated meetings, and collaborated with leaders across teams to drive successful project outcomes.

- Developed multi-client to server publishing microservice that streamed monitoring/analysis data from **Docker/Kubernetes** containers. Integrated **gRPC**, **Fluent Bit**, **Kafka**, **Grafana**, and **Splunk**.

- Revitalized code review processes, empowering developers of all skills to actively contribute/learn from every PR, reducing time to merge, integrated **GitHub** tools to streamline review process.

- Owned library for recovering "black box" log files from failed **Docker/Kubernetes** containers, leveraging multiple **threads**, **circular buffers**, **IPC**-based communication, and remote **volume store**.

- **Deployed**, debugged and administered **Linux-based VMs** using **Jenkins** to develop, test, and deploy **Docker/Kubernetes** containers.

- Ensured rapid issue resolution and system reliability through critical **on-call technical support**, demonstrating a deep understanding of system architecture and cross-team product integration.

- Streamlined artifact synchronization between legacy Perforce and host build system using Docker/Kubernetes container. Implemented Bash scripting and volume mounts for efficient file transfer.

- Lowered dependency on individual expertise by initiating peer education program, conducting needs assessments, mobilizing subject matter experts, and creating a comprehensive video knowledge base.

- 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.

- Eliminated **cybersecurity** risks by monitoring vulnerabilitites using **Blackduck** and **Security Scorecard**, JIRA tracking of resolution, leading to a perfect security assessment for the project.

- Mastered 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**.

- Deep intellectual curiosity and passion about learning through **methodical study**, **organized note-taking** using Zettelkasten method, systematic reviews using **spaced repetition flashcards**.

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.

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