Scott Johnson

Contact Information

Scott Johnson
jaywir3@gmail.com
https://www.jwir3.com
https://www.github.com/jwir3
https://www.linkedin.com/in/jwir3
+1 701 741-9338

Summary

Strategic engineering leader with over 15 years of experience architecting, delivering, and scaling complex software platforms and leading high-performing, cross-functional engineering teams. Proven track record of driving technical strategy, fostering a culture of innovation and delivery excellence, and collaborating effectively with product, analytics, and executive leadership. Passionate about building scalable, platform-first solutions and mentoring the next generation of engineering talent.

Core Competencies

- **Strategic & Technical Leadership**: Technical Roadmapping, Cloud Architecture (AWS), Platform Development, Microservices & SOA
- **Team Leadership & Development**: Hiring & Mentoring, Agile Methodologies, Performance Management, Engineering Culture
- **Execution & Delivery**: CI/CD & DevOps, Quality & Performance Metrics, API-First Design, Stakeholder Management
- **Core Technologies**: AWS, Go, JavaScript/TypeScript, NodeJS, React, Docker, Terraform, C/C++, Rust

Work Experience

Remote

Capture Software Engineer at Chromatic Mar 2023 - Present

- Architected and developed distributed, fault-tolerant backend services using Go, TypeScript, and Node.js within a large-scale Service-Oriented Architecture (SOA) on AWS.
- Maintained and improved capture infrastructure using Docker, Heroku, and AWS.
- Applied browser and rendering expertise to improve image differencing algorithms, increasing accuracy and reliability.
- Collaborated on cloud architecture to achieve measurable improvements in deployment speeds.
- Partnered closely with Product and UX leaders to align the technical roadmap with customer needs, ensuring engineering initiatives directly supported business outcomes.

Founder/CEO at FoamFactory Jan 2021 - Mar 2023

- Led the full-stack development and architectural design of a SaaS platform for brewery management using Ruby on Rails and React, successfully taking the product from concept to market.
- Architected a scalable backend using a microservice approach with Rust, Go, and NodeJS, ensuring clear separation of concerns and high availability- - Created resuable React component library using Storybook, improving developer efficiency and software reusability.
- Pioneered strategic growth initiatives, enhancing operational efficiency and market reach through innovative tech solutions.
- Led efforts for the acquisition of venture capital funding to drive growth and plan for future expansion.

Principal Engineer at Medal Dec 2019 - Jan 2021

- Enhanced Electron app with audio/video controls for gamers using React and Typescript.
- Contributed to R&D, build systems, and integrations, improving application performance.
- Engineered a hardware-accelerated video capture system for gamers, interfacing directly with graphics hardware to ensure high-performance recording with minimal overhead.
- Led cross-functional teams to enhance software architecture, boosting system efficiency and performance for seamless user experiences.

Lead Graphics Engineer at InVision App Dec 2016 - Dec 2019

- Led the architecture and development of a high-performance, real-time data visualization platform, demonstrating expertise in optimizing complex systems and leading cross-functional teams.
- Utilized WebGL and haXe (a language similar to Typescript) for efficient GPU-based rendering of complex vector graphics.
- Designed and implemented a high-performance, GPU-based rendering system for complex Bézier paths, directly programming shaders in GLSL to optimize visual quality and frame rate.
- Utilized GLSL for shader programming, achieving stunning visual effects in WebGL.
- Prototyped WebAssembly-based rendering engines, exploring Rust and Skia for future improvements.

Minneapolis, MN

Mobile Engineering Lead at When I Work Sep 2014 - Dec 2016

- Led team to innovate Android app solutions, enhancing user engagement and satisfaction, reflected in improved app ratings from 2.9 to 4.0.
- Led a team of 3 developers in an Agile environment, improving project delivery times and application quality through rigorous code reviews, CI/CD, and mentorship.
- Managed CI environment with tools like TravisCI and CircleCI.
- Implemented code quality standards through the use of code reviews, test coverage analysis, and static analysis processes.
- Coordinated agile practices, improving project delivery times.

Edina, MN

Android Engineering Lead at Jingit Nov 2013 - Sep 2014

- Led cross-functional teams in developing an Android app for retail rewards, enhancing app features, as well as driving substantial engagement and user satisfaction.
- Boosted team productivity by 10% weekly through agile processes and coding standards.

- Implemented automated testing and CI through the use of Jenkins, improving code reliability on Android and iOS.
- Streamlined the push notification system, ensuring timely user updates and messaging across all devices.
- Oversaw app lifecycle, from feature design to successful Google Play Store release.

Remote

Platform Engineer, Layout at Mozilla Jun 2011 - Oct 2013

- Engineered and maintained low-level, performance-critical systems in the Gecko rendering engine using C++, directly contributing to a platform supporting millions of users.
- Optimized rendering pipelines for web-based gaming applications, utilizing WebGL and DirectX to enhance performance and ensure cross-platform stability.
- Architected and implemented core rendering systems compliant with W3C standards, focusing on stability, extensibility, and cross-platform performance.
- Created layout code for Firefox Android with the Android SDK and NDK, improving performance.
- Facilitated inter-process communication using JNI and COM, ensuring seamless integration.
- Developed complex layout and rendering features in C++, focusing on performance and adherence to detailed technical specifications.
- Optimized animated image rendering, improving browser efficiency and user experience.
- Enhanced text readability in Firefox, contributing to user engagement and satisfaction.
- Contributed to W3C specs such as CSSOM and WebGL, driving standards in web technologies.
- Maintained unit tests, ensuring stability and spec compliance within Mozilla's product offerings.
- Enhanced cross-platform performance by optimizing code efficiency, leading to improved user experience across Mozilla products.

Bloomington, MN

Sr. Software Engineer at General Dynamics AIS Oct 2009 - May 2011

- Enhanced *Multi-Int Analysis and Archive System (MAAS)* features for intelligence community data analysis, boosting analyst efficiency.
- Developed Java code interfacing with Microsoft SQL Server, improving data processing speed.
- Collaborated on the MAAS software suite, including video editing with ffmpeg, to improve user satisfaction.
- Implemented web services using Hibernate and Spring, enhancing system reliability and performance.
- Led the enhancement of MAAS software, improving data processing efficiency for intelligence analysts.

Other Experience

Ice Hockey Official at USA Hockey & Minnesota State High School League (MSHSL) April 2013 - Present

- Demonstrated impartial, real-time decision-making and conflict resolution in high-pressure environments involving coaches, players, and league officials.

- Applied a deep understanding of complex rule sets to ensure fair play and maintain game integrity, a skill directly applicable to interpreting technical specifications and upholding engineering standards.
- Managed game flow and communicated critical decisions clearly to a diverse group of stakeholders.
- Trained new officials through a mentoring program and received mentoring from NHL, NCAA, NFHS, and USAHockey officials.

Education

University of Minnesota

Master of Science, Computer Science 2006-2009

From 2006-2009, was in a PhD program in Computer Science with research focuses in computational geometry and photorealistic rendering in computer graphics.

University of North Dakota

Bachelor of Science in Computer Science 2001-2006

Completed a Bachelor's degree in Computer Science with focused study in software engineering and computer graphics. Graduated summa cum laude.

Bachelor of Science 2001-2006

Completed a separate Bachelor's degree in Mathematics with focused study in statistical theory, number theory, and combinatorics. Graduated summa cum laude.

Awards and Recognitions

Top Secret Clearance (Currently Inactive); *United States Department of Defense*, 2009-2011

Google Summer of Code Mentor; *Crystal Space 3D SDK*, Summer 2008, Summer 2009

Google Summer of Code Grant Recipient; *Crystal Space 3D SDK*, Summer 2007

Inducted Lifetime Member, *Phi Beta Kappa*, Honor Society in Liberal Scholorship, 2006

Inducted Lifetime Member, *Upsilon Pi Epsilon*, Computer Science Honor Society, 2004

Skills

- **Languages**: Ruby, Go, Javascript/TypeScript, Python, Rust, C++, Java
- **Frameworks & Libraries**: Ruby on Rails, React, Node.js, WebSockets, Electron
- **Databases**: PostgreSQL, MySQL, Redis, Microsoft SQL Server, Hibernate
- **Cloud & DevOps**: AWS, GCP, Docker, Terraform, CircleCI, Jenkins, Github Actions
- **Platforms & Systems**: Linux, Mac OS/X, Windows, Gecko

- **Graphics**: OpenGL, WebGL, DirectX, Vulkan