Sean Amoroso

Accomplished full-stack engineer with a strong background in C#, JavaScript, and Go, specializing in developing scalable web applications and dynamic system evaluations. Known for leading product innovations and optimizing performance, I excel in implementing cutting-edge technologies and efficient processes. My leadership extends to pioneering cross-functional teams and promoting best practices that enhance product quality and team capabilities. Committed to driving growth through strategic development and fostering talent, I am adept at transforming technical challenges into impactful enterprise solutions.

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Senior Platform Engineer

1/ST Technology, Jan 2023 - Present

C#, Typescript. Javascript, NodeJS, Go, Postgres, Kafka, Docker, Helm, Kubernetes, Google Cloud

- **Architectural Contributions:** Played a key role in designing the overall architecture and cross-cutting features of our products.
- **Zero-Trust Architecture for Kafka:** Designed and implemented cryptographic solutions for secure message signing and verification.
- **Node20 Upgrade:** Led the upgrade of the monorepo to Node20, managing package updates and resolving breaking changes across the product.
- **Prism Optimization:** Ensured 100% deployment accuracy, analyzed resource usage, reduced costs, and improved performance.
- **Protobuf Plugin Development:** Created a plugin to selectively filter proto files, enhancing documentation accessibility for diverse audiences.
- **Critical Issue Resolution:** Addressed integration test deadlocks, concurrency issues, and major deployment bugs, significantly improving system reliability.
- **Enhanced Authentication:** Improved authentication services, resolved JWT integration issues, and standardized exception handling and security policies.

Staff Software Engineer

Edge Case Research, Apr 2022 - Jan 2023

Go, Postgres, Vue, Kafka, Docker, Kubernetes, Helm, Google Cloud

Senior Software Engineer (Team Lead)

Edge Case Research, Apr 2021 - Present

- **Developed Computation Engine**: Designed and implemented a computation engine using Google's Common Expression Language to dynamically evaluate autonomous system safety.
- **Enhanced Frontend Architecture**: Created and integrated new views, components, and Vue.js store functionalities to enhance user interface interactions.
- **Led Platform Guild**: Initiated and led a cross-functional team to establish best practices and propose enhancements across applications.
- **Optimized Service Performance**: Drastically reduced the runtime of a dynamic evaluator service from 9 minutes to 5 seconds through effective caching, query optimization, and system scaling.
- **Containerized Development Workflow**: Spearheaded the adoption of Docker, Kubernetes, and Helm for container-driven development and deployment processes.
- Agile Leadership: Managed Agile sprint ceremonies as a pod lead, aligning team efforts with stakeholder priorities to effectively address the product backlog.
- Standardized UI Components: Created a reusable Vue component library to align with company-wide design standards.
- **Innovative Visualization Tools**: Developed a custom web renderer using Eclipse Layout Kernel and D3 for complex fault tree analysis diagrams.

- **Improved Release Management**: Implemented a structured branching and release strategy to ensure stable and predictable software deployments.
- **Enhanced Feature Intake Process**: Advocated for and implemented a new discovery and user story mapping process for better feature integration.
- **Recruitment and Hiring Contributions**: Actively participated in hiring, from interviewing engineers to recruiting interns at university career fairs.

Development Manager / Senior Software Engineer

ConnectiveRx, 2019 - 2021

C#, Azure Devops, React, SQL Server, AWS

- Led initiatives to stabilize core products, enhance scalability and performance, and increase project delivery velocity through CI/CD pipelines.
- Managed a team of 10 engineers, focusing on quarterly goals, performance reviews, and consistent development practices.

Principal Software Engineer / Senior Software Engineer

Bentley Systems, 2012 - 2019

C#, AngularJS, React, Typescript

- Architected a standard SPA Web UI Framework using .NET and AngularJS, leading to its implementation across several projects.
- Managed an international front-end team, driving improvements in software delivery and customer satisfaction through enhanced Agile practices.
- Transitioned team workflow from Scrum to Kanban, significantly increasing output and providing clear metrics for project management.

Software Engineer

InspectTech, 2011 - 2012 (acquired by Bentley Systems in 2012)

ASP.NET WebForms, Oracle, SQL Server, Javascript, JQuery

• Developed and customized the Core platform for transportation solutions, supporting various state DOT's and enhancing federal inspection planning.

Programmer Analyst

USG Insurance Services, Inc., 2005 - 2011

ASP.NET WebForms, Javascript, JQuery, C#, VB.Net

• Maintained and developed features for the Broker Management Exchange web application, including designing a high-volume invoicing module.