

Joshua Holmes

Senior Software Engineer

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Summary

Highly experienced Senior Software Engineer with 3+ years experience in Rust, Zig, C/C++, Python, and TypeScript. Designed and lead front end work for porting satellite imagery viewer from legacy app to new app that we developed for thousands of sales reps and growers, which resulted in giving sales reps and growers powerful insights into grower's field health and allows sales reps to be a more knowledgeable resource to their customers.

Skills

Rust	Zig	TypeScript / JavaScript
C / C++	Python	Multi-threaded programming
PostgreSQL	MongoDB	CI/CD
React	Linux	Devops
X11	Wayland	AWS Suite
Excellent written and verbal skills	General understanding of compilers	Docker / containerization

Work experience

Corteva Agriscience

April 2023 - present

Sr. Software Engineer I

- Led team's transition to common Docker, Bash, Terraform and Python tooling for CI/CD pipeline, unit tests, code-base structure, and more, for 15 repos resulting in uniform configuration across the team and organization for better maintainability.
- Created new backend service for generating PDF field reports with SQS queue, AWS Lambda, and S3, to be used by up to 5k sales reps and growers when released to collect data about a farm field in a printable format.
- Maintained containerized microservices to ingest 20M+ acres of satellite imagery of farm fields per year in Postgres DB, AWS S3 buckets, and AWS Lambdas, used by thousands of sales reps and growers to analyze and compare vegetative health.

StatHero

March 2022 - April 2023

Software Developer

- Saved \$50,000 per year by developing web scraping bot using Node.js and Puppeteer on Google Cloud instance to retrieve data for internal MongoDB/Express.js sports API.
- Built frontend reporting tools for internal app using Angular and TS to provide financial visibility.
- Architected and developed new Affiliate and Referral programs with Python and Firebase to increase user base and engage new users.

Open Source

Bevy

January 2025

A refreshingly simple data-driven game engine built in Rust

- Led redesign of single-threaded data store and communication with multi-threaded data, which should improve performance significantly when project is complete due to the bulk of the game's computational workload not being shared with the main event loop.
- Communicated with 30+ stakeholders to identify problems to craft a fitting solution, turning a contentious solution that would have complicated the API, into a simpler solution that all stakeholders agree on and solves 2x more problems than the original.
- Documented new design and detailed technical implementation plans, resulting progress tracking for stakeholders and a clear vision for implementers.

Mach

September 2024

For building high-performance, truly cross-platform, robust & modular games, visualizations, and desktop/mobile GUI apps

- Reintroduced native Linux support with X11 and Wayland using Zig after it had been scrapped due to lack of Linux developers, resulting in support for all major desktop platforms.

Education

Flatiron School

February 2022

Certificate of Completion of Software Engineering Coding Bootcamp

Boise State University

May 2019

Bachelor of Music in Music Performance