AARON WILLETT

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Rising senior with enterprise software experience through internships. Delivered high-impact automation and security solutions. Strong foundation in backend systems, databases, and architecture. Seeking new grad/junior developer role with growth potential.

Languages:	C · C++ · Rust · Java · Golang · JavaScript · TypeScript · Python · Bash · SQL
Backend & Database:	PostgreSQL · MongoDB · Spring Boot · Database Design · REST APIs · Transaction Management
Cloud & Infrastructure:	AWS (S3, CloudFront) · GCP · Linux · Docker (exposure) · CI/CD · GitHub Actions
Frontend & UI:	React · Svelte · Component Libraries · Interactive Data Visualization
Testing & Development:	JUnit · Jest · Cypress · Storybook · React Testing Library · GDB · Valgrind · Git

WORK EXPERIENCE

CDK Global – Software Engineer Intern   Summer 2025

Building payment infrastructure for AWS-based SaaS platform serving 10,000+ auto dealerships with real-time accounting

- Eliminated critical XSS vulnerability through CSP implementation, coordinating network-layer fix across all microservices
- Drove UI automation - improved Cypress test reliability, eliminated flaky tests, authored PI3 planning stories
- Automated data migration verification - reduced 6-hour manual process to 5 minutes (98.6% reduction), saving $4K-$33K/yr
- Led Scrum ceremonies - facilitated standups, implemented accountability policies to rescue at-risk deliverables
- Shipped feature-flagged validation for 15-digit alphanumeric check numbers, ensuring controlled production rollout

CDK Global – Software Engineer Intern   Summer 2024

Cloud-based document management system for modernizing automotive document archiving and retrieval

- Built shared React component library - eliminated code duplication across multiple applications
- Implemented dual-database architecture - MongoDB/DynamoDB CRUD operations via SpringBoot with LaunchDarkly feature flags
- Achieved 100% test coverage for dual-database operations using JUnit
- Created reusable AG Grid component with React/module federation for live AWS/MongoDB data display
- Established UI quality gates using Storybook and Cypress for pre-merge validation

Portland State University – Technical Course Support Specialist and Computer Science Tutor   April 2024 - Present

- **Tutored 3 CS courses** (Data Structures/Algorithms) - taught C++ memory management, recursion, optimization, debugging, and clean code practices

HIGHLIGHTED PROJECTS

Portland State Aerospace Society (PSAS) – Rocket Systems Engineer   June 2025 - Present

Leading firmware modernization for rocket recovery system controlling parachute deployment on high-power rockets

- Architecting safety-critical rocket firmware in Rust/Embassy - migrating from C/ChibiOS for parachute deployment and recovery control on multi-kilometer altitude rockets
- Implementing real-time async patterns for microsecond-precision sensor monitoring and actuator control in resource-constrained flight computers

ChocAn System (Academic Project) – (C++, PostgreSQL, multi-tier architecture) - Software Engineer   Spring 2025

- Built production healthcare provider platform in C++/PostgreSQL - implemented secure DAL with parameterized queries, DTOs, and base DAOs for standardized database operations
- Optimized for scale and security - prepared statements for large datasets, advanced reporting for provider/member analytics, .pgpass credential management for compliance

Drop: Embedded Rust Fall Detector - Developer   Spring 2025

- Built fall-detection system on BBC micro:bit v2 in Embedded Rust - configured LSM303AGR accelerometer via I2C with custom thresholds to trigger alerts during free-fall events
- Implemented real-time feedback system - 1kHz GPIO-driven alarm, non-blocking display updates, and LockMut concurrency for safe interrupt handling

EDUCATION

B.S. Computer Science – Portland State University   Fall 2023 - Spring 2026

Coursework: Embedded Rust • Systems Programming • OS • Databases • Cloud Security • Performance • Functional Programming • Programming Languages