

BERNIE CONRAD

SECURITY ENGINEER

Santa Barbara, CA | (925) 490-9757 | root@bernstern.dev | linkedin.com/in/bernieconrad | bernstern.dev

Senior Backend Engineer with over three years of experience in the software industry, developing and scaling complex, high-availability systems and expertise in multiple programming languages, including Python, Java, Go, Rust, C++, and C, and numerous software stacks. Recognized for designing and implementing features that **reduce response times and increase user satisfaction**. Known for setting the bar for software engineering, **diminishing system downtime, improving speed to market by 45%, and increasing reliability 3X**.

COMPETENCIES + TOOLS

Agile Method | AWS | Azure Active Directory | Bash | BLE | C | C++ | Docker | Infrastructure Management | FIDO | Git | Go | HyperV | Identity Access and Management (IAM) | Incident Triage and Response | Java | Kubernetes | Linux | MongoDB | Node.js | Networking | Pluggable Authentication Modules | Powershell | Python | Rust | SQL | Test Driven Development | Terraform | Vagrant | VirtualBox

EXPERIENCE

Allthenticate | Santa Barbara, CA | 2020 – Present

Frictionless Digital and Physical Authentication

Lead Software Engineer

Provide technical leadership and delivery for cutting-edge desktop passwordless software and embedded smart door readers that ensure seamless user authentication. Lead a talented team of engineers, utilizing Bluetooth Low Energy, Websockets, Python, Rust, C++, and other technologies to create innovative and secure solutions. Collaborate with cross-functional teams to drive software quality, performance, and reliability, while mentoring and providing technical guidance to junior engineers. Directly impact user experience and security while revolutionizing how users authenticate and access secure spaces and digital resources.

Technical Wins

- **70% faster user experience and improved reliability** attained by creating a new open source cross-platform BLE framework (Able) enabling multiple users to interact with computers and doors securely.
- **Created a first-to-market passwordless authentication software** integrating a desktop solution with Windows Logon and Pluggable Authentication Modules on Linux and macOS for seamless authentication for desktop users.
- **Eliminated technical debt and increased iteration rate by 85%** by creating DevOps pipelines with multiple testing frameworks, packaging, signing, and deployment from scratch on MacOS and Windows infrastructure.
- **3X reliability improvement** achieved by implementing remote logging, over-the-air commands, and automated diagnostics with recovery using WebSockets, MySQL, and MongoDB for monitoring physical access control.
- **Mitigated repeat incidents** by triaging security incidents and creating a regression testing framework with fuzzing; hosted an internal bug bounty program to encourage the team to do adversarial testing.

Business Wins

- **\$3.1M seed round funding** secured by creating a seamless Bluetooth based authentication experience that differentiates the company from competitors.
- **Reduced operating costs and simplified identity management** by migrating AWS infrastructure to use Terraform and single sign-on with 2FA for administrators to maintain zero trust practices.
- **63% reduction in time to ticket resolution** accomplished by creating robust and easily extensible hardware, integration, and unit testing frameworks leveraging coverage and fuzzing tools.
- **45% improvement in speed to market** uncovered by managing relationships with strategic partners and creating tools to improve the developer experience and reduce friction with development and distribution processes.

Career Note: Intern experience as a **Software Engineer** with SafeInHome and **Robotics Engineer** with Tanner Robotics.

EDUCATION + CERTIFICATIONS

Bachelor of Science, Computer Science, University of California, Santa Barbara, Santa Barbara, CA

AWS Cloud Practitioner