

KATHRYN (KAT) DOLAN

SOFTWARE DEVELOPER 3 [RUST]

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PROFESSIONAL SUMMARY

Deeply passionate Rust engineer focused on building solutions that create meaningful impact. I bring a structured, analytical approach to architecture and problem-solving, with a strong track record of delivering scalable platforms, generating data-driven insights and automating processes. Known for clarity, follow-through, and trust in cross-functional collaboration, I thrive in environments that value ownership, thoughtful engineering, and principled execution. I am looking for a team where I can contribute deeply to solving the right problems the right way.

PROFESSIONAL EXPERIENCE

Maveris, a cybersecurity-focused startup government contractor Aug. 2020 - Present

- Invited by executive team to engage in key internal growth initiatives, recognized for analytical skills and the ability to simplify and visually communicate complex concepts effectively.
- Participated in Capture the Flag events, using Python for scripting.
- Sole team member retained at client request during major contract funding cuts, reflecting trust and performance.
- On a separate contract, received company-wide recognition for positive customer feedback, formalized by a financial bonus.

GOVERNMENT ORGANIZATION ASSIGNMENTS UNDER MAVERIS

Cyber Security Operations Center (CSOC) in Veterans Affairs Oct. 2023 - Present

Software Developer 3 [Rust]

Sole developer of the Cyber Automated Web Scanner (CAWS) Rust platform

- Rebuilt a legacy 2016 CLI-based security tool into a scalable Actix-Web server with a Tokio async runtime, enabling real-time control and communication, automation, and reporting.
 - **Former State:** A cybersecurity expert had to remote into 4 servers, launch 2 CAWS instances per server, and manually queue scans. The system required continuous monitoring and manual restarts.
 - **Current State:** Leveraged Docker and Docker Compose to orchestrate a scalable fleet of vulnerability scanners managed concurrently by CAWS. This increased scan throughput from 2,000 to 8,000 URLs per day. Developed a user-friendly WebSocket-based UI for live communication and control between client and scanners. Introduced a scan scheduler, automated queueing, restarts, and report generation for a completely hands-off user experience. Hardened the system against cyberattacks by designing for resilience and fault tolerance.

Information Technology Program Integration (ITPI) in Veterans Affairs Aug. 2020 - Oct. 2023

IT Analyst/Software Developer 1 (2020-2021) → Software Developer 2 (2021-2023)

- Contributed to building the sub-organization (ITPI) from the ground up; delivering the branding package and playing a key role in defining core business processes.
- Built project management systems from technology and tradeoffs to design and development.
- Used Agile methodology to develop solutions in the Microsoft Power Platform ecosystem; automated business processes, built custom applications and organizational dashboards, and designed underlying databases.
- Streamlined and automated multiple day-long reporting workflows using Power BI

SKILLS

Programming Languages: Rust, Python, HTML, CSS, JavaScript, SQL (PostgreSQL, MySQL), M, Dax

Tools & Frameworks: Tokio, Actix Web, WebSockets, Kali Linux, Docker, Docker Compose, Git, Jira, Redis

Systems & Methodologies: System architecture, Agile methodologies, Concurrent programming, UI/UX design

Microsoft Technology: Power BI, Power Platform, Excel, SharePoint

RUST ECOSYSTEM @ CRATES.IO

Reliability: thiserror, anyhow, tracing, dotenv, regex, serde & serde_json, validator, chrono, uuid

Async & Web: tokio, tokio-tungstenite, tokio-stream, actix-web-actors, actix-session, actix-cors, futures

Systems: argon2, openssl, native-tls, sqlx, async-diesel, bollard, tokio-cron-scheduler, async-watcher, time and much more...

EDUCATION

Bachelor of Science in Computer Information Systems

Business Core

Bentley University

2020