

Sam Bock

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ABOUT ME

Passionate software engineer with experience in full-stack development, AI/ML, and cybersecurity automation. Strong focus on designing scalable solutions, optimizing workflows, and solving real-world problems with modern technologies. Enjoys tackling challenging engineering problems and streamlining manual processes.

EXPERIENCE

- **Software Engineering Intern** Sunnyvale, CA
Lockheed Martin Space *June 2024 – Present*
 - **Automated SME Search System:** Designed and developed a full-stack web application to automate SME (subject matter expert) search and review assignment, replacing manual Excel tracking and coordination. Integrated data from multiple sources using APIs and cron jobs, with a Linux service running behind Nginx.
 - **Project Ownership:** Led the project end-to-end: proposal approvals, server provisioning, system architecture, UI/UX design, backend API development, and deployment. Addressed security reviews, optimized slow server performance, and iterated based on customer feedback.
 - **Technologies Used:** Next.js, TypeScript, Prisma, Supabase, Tailwind CSS, Linux, Nginx
- **AI/ML Research Intern** Sunnyvale, CA
Lockheed Martin Space *June 2023 – Oct 2023*
 - **Low-Light Object Detection:** Independently improved low-light object detection through hyperparameter tuning and data augmentation techniques (blur, rotation, etc.). Developed a custom data loader to improve model robustness.
 - **Evaluation and Impact:** Enhanced detection accuracy in test environments but real-world impact was not measured due to IRAD research scope.
 - **Technologies Used:** Python, TensorFlow, Keras, OpenCV, Jupyter Notebooks
- **IT Engineering Intern** San Luis Obispo, CA
HaptX Inc. *Mar 2023 – June 2023*
 - **Security Policy Enhancement:** Implemented country-based IP restrictions, converting an open list to a whitelist approach. Enhanced authentication measures for high-risk regions and developed an analytics dashboard tracking login attempts and policy enforcement.
 - **Technologies Used:** Microsoft Azure, Microsoft Intune
- **Junior Security Operations Center Analyst** San Luis Obispo, CA
Cal Poly Information Technology Services *June 2022 – Feb 2023*
 - **Security Automation:** Developed a Slack bot integrated with Splunk SOAR to automate incident response tasks. Reduced analyst processing time from several minutes to under one minute, handling phishing emails, suspicious logins, and account suspension workflows.
 - **Incident Handling:** Processed 50-200 security incidents daily for a university with over 20,000 students and employees. The automation system significantly reduced manual workload.
 - **Technologies Used:** Splunk, Python, Slack API, Linux, Splunk SOAR

PROJECTS

- **Plan2Gather:** Developed a collaborative event scheduling app that finds optimal meeting times based on user availability. Used Vite, Nx, and Cloudflare KV.
- **Custom PC Builder and Trader:** Built a web application enabling users to create and trade custom PC builds. Backend powered by PostgreSQL and FastAPI.
- **HomeLab:** Designed and deployed a home server with Cloudflare Zero Trust to host self-hosted applications securely.
- **Portfolio Website:** Built a portfolio website using Next.js, TypeScript, and Tailwind CSS.

SKILLS

Languages: Python, SQL, TypeScript, Tailwind CSS, Java, C, C++

Technologies: Next.js, React, Node.js, Microsoft Azure, Docker, Supabase, Git, Linux, Splunk, Agile Development, Testing and Debugging