

## **Sterling Loughmiller**

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<https://github.com/sloughmiller>

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## **SUMMARY**

Software engineer with 10+ years of systems engineering experience and a B.S. in Computer Science. Strong focus on backend and database engineering, with expertise in PostgreSQL, FastAPI, SQLAlchemy, and AWS. Skilled in designing schemas, optimizing queries, and building RESTful APIs integrated into scalable full-stack systems. Known for the ability to rapidly learn and apply new technologies, adapting from CNC automation to modern cloud-native applications.

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## **SKILLS**

**Programming:** SQL, Java (proficient); Python, C, C#, C++, JavaScript/TypeScript (working knowledge)

**Database & Tools:** PostgreSQL, MySQL Workbench, schema design, query tuning

**Version Control:** Git, GitHub

**Cloud & Environments:** AWS (EC2, RDS), Linux/Unix, Windows, macOS

**Other Tools:** SolidWorks, Mastercam, Siemens/Fanuc CNC systems

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## **PROJECTS**

**Home Inventory App** – Full-stack inventory management system for households and shared users

**Tech:** FastAPI, PostgreSQL, React (Vite + TS), Tailwind CSS, Netlify, Render, AWS (EC2, RDS)

**Designed and deployed** a secure, scalable inventory API using FastAPI and PostgreSQL with UUID-based routing, JWT authentication, and multi-inventory user access control.

**Built a React PWA frontend** with mobile-first Tailwind styling, modular components (cards, modals), and dynamic item/category/location management.

**Implemented row-level security** and scoped filtering for shared inventories via SQLAlchemy, with schema migrations managed using Alembic.

**Deployed full-stack app** using Render (backend), Netlify (frontend), and AWS RDS (PostgreSQL) with CI/CD and secure token handling.

Features include barcode scanning, role-based inventory access, and centralized logging with future support for QR labels and mobile optimization.

 [Sterling Loughmiller GitHub](https://github.com/sloughmiller)

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## **EDUCATION**

**Boise State University** — Boise, ID

**BS in Computer Science — GPA: 3.4**

**Relevant Coursework:** Databases, Algorithms, Data Structures, Mobile App Development, Theory of Computation, Programming Languages, Computer Security, Ethical Hacking, Network Security & Defense

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## **EXPERIENCE**

**Gayle Manufacturing Company** – Caldwell, ID

**Machine Shop Supervisor, Head Programmer, Lean Manufacturing Officer**

*July 2023 – Present*

- Developed custom automation scripts for CNC and workflow operations, improving reliability, throughput, and maintainability across multiple production lines.
- Designed scalable programming logic that reduced code redundancy by 90% and enabled reuse across multiple parts and machines.
- Built technical documentation and training tools used by machinists, supervisors, and engineers across departments.
- Spearheaded upgrades and integrations of new machinery and control software, including macro installation, parameter tuning, and reverse engineering of undocumented features.
- Supported multi-site technical coordination between domestic and international engineering teams.

**Assistant Machine Shop Supervisor**

*March 2019 – July 2023*

- Engineered custom logic-based programming routines to enhance part quality and increase throughput across CNC platforms.
- Reduced steel plate processing time by 25%, enabling a 75% increase in total throughput.
- Supported all shop-floor operations: machine setup, tool calibration, G-code debugging, and ongoing process improvement