Sterling Loughmiller
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SUMMARY

Software engineer with 10+ years of experience designing scalable systems and automating complex workflows across manufacturing and backend platforms. Strong foundation in systems integration, backend development, and data integrity—supported by a CS degree with a cybersecurity emphasis and hands-on experience in compliance-sensitive environments. Proficient in SQL and Java, with working knowledge of Python, C++, and scripting. Currently building backend tools and health-inspired applications focused on clean architecture, data consistency, and real-world utility. Seeking to contribute to impactful software in genetics, health tech, or mission-driven systems work.

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.
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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