

SAMUEL BEAL

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<https://sambeal.dev/>

🐙 <https://github.com/spbeal>

EDUCATION

Moscow, ID **University of Idaho** **Fall 2023 – December 2025**

- B.S in Computer Science, December 2025. GPA: 3.8/4.0
- Artificial Intelligence and Machine Learning Academic Certificate.
- **Relevant Coursework:** Databases, Compilers, Data Structures, Algorithms, Computational Biology.

Auburn, WA **Green River Community College** **Fall 2021 – June 2023**

- Associate in Arts, June 2023. GPA: 4.0/4.0

SKILLS

- **Tech Stacks:** React, Vite, TypeScript, JavaScript, Golang, Python, PureScript, C/C++/C#, HTML/CSS, Flask.
- **Tools & Platforms:** Git, UNIX, Docker, Kubernetes, CI/CD, Node.js, PostgreSQL, MUI.
- **Domains:** Embedded Systems, Networking, REST APIs, Agile/Scrum.

PERSONAL PROJECTS

Personal Website: www.sambeal.dev/portfolio (for additional projects and information)

SurgeV ([Website](#)) **Jan 2025 – Present**

- Developed an ecommerce website with real products purchased using stripe payment intent.
- Utilized: Next.js, Stripe, Node.js, TypeScript, JavaScript, Tailwind CSS.

Sketchkey – CrimsonCode 2025 Hackathon WSU ([GitHub](#), [devpost](#)) **Feb 2025**

- Global ranked Pictionary designed to filter user generated images as input to a generative AI model.
- Developed a canvas, profile with authentication, and hit REST API endpoints between React and Django.
- Utilized: React, Vite, Django, k3d, MUI, JavaScript, Python, Docker, AWS.

Crafty3D – Winner at CrimsonCode 2024 Hackathon WSU ([GitHub](#), [devpost](#)) **Feb 2024**

- Built a Minecraft clone with Voxel rendering and Perlin noise in 24 hours.
- Primarily worked on building shaders, UI, Perlin Noise generation, and factoring the codebase.
- Utilized: C++, Raylib, stb, zig, Git.

EMPLOYMENT

Associate Software Engineer - R&D **Schweitzer Engineering Laboratories** **Jan 2025 – Present**

- Built **full-stack containerized applications** for **embedded systems** using **React, Vite, MUI, TypeScript/JavaScript**, with **Golang backends, PostgreSQL, and OpenAPI**.
- Delivered full-stack features in **PureScript**, extending functionality across existing applications.
- Refactored and migrated **tens of thousands of lines of C#** into a **Golang package** enabling efficient CRUD operations on **Windows Structured Storage** files (CFB format).
- Advanced the development of **DTS**, a custom Golang-based language with **Nuclio**.
- Wrote automation scripts interfacing with **relays, REST APIs, network protocols**, and **authentication systems** for clients such as **Entergy** and **Southern Company**.
- Designed, containerized, and deployed applications using **Docker, Kubernetes**, and **Jenkins CI/CD pipelines**.
- Collaborated in an **Agile Scrum environment** (*Jira, Confluence, Bitbucket*) contributing to **code reviews, sprint planning, releases**, and **cross-team communication**.

Web Developer Intern **Friends Of the Clearwater** **Nov 2024 – Jan 2025**

- Implemented an **embedded donation page** using **Stripe** to enhance **UX** and streamline the donation process
- Improved website aesthetics through design principles and added features such as a newsletter pop-up.

Academic Tutor **University of Idaho** **Sep 2024 – Present**

- Directly worked with a diverse range of students & topics.
- Expanded my ability to adapt and articulate advanced programming concepts.

- **Valedictorian @ Enumclaw High School:** Graduated HS with an **associate** degree and a 4.0/4.0 GPA.
- **Eagle Scout** (2022).
- **University of Idaho ACM Club** (2024-Present), **Rugby Club** (2024-Present), **Water Polo** (2024-2025).