B Smith

github.com/Merlin04
Located in the Pacific Northwest

Education

Reed College | **Bachelor of Arts, Computer Science** | Portland, OR | May 2026

Bellevue Big Picture School | Bellevue, WA | June 2022
Project-based high school with real-world internship program

Experience

Software Engineer I | Hack Club | December 2022-January 2023, June 2023-August 2023
Developed open-source hardware and software projects to engage young people with making and hacking
- Collaborated with researchers at MIT on Modular Things, a framework for plug-and-play virtualized hardware (**coauthor** on paper, accepted to **ACM CHI '23** conference)
- Designed an inexpensive, hackable drawing machine in **Onshape CAD** + wrote supporting documentation to introduce students to digital fabrication
- Coded a fully browser-based IDE for controlling Modular Things using **Web Serial API**, **Next.js**, **React**, **TypeScript**

Web Developer | Gigantic | Seattle, WA | November 2021–August 2022
Developed internal tools, did client work at agency for small-medium sized businesses
- Used **Next.js**, **React** to build a tool to automate image processing workflows for client sites. Increased team efficiency and reduced costs/dependence on third-party service
- Implemented designs in **Webflow** with **modern CSS**, **JavaScript** to deliver high-quality web experiences to clients
- Investigated and developed new revenue sources to improve long-term sustainability
- Developed **custom plugins** and **webapps** to fulfill client requirements
- Leveraged knowledge of **HTML/CSS/JS**, **React**. Quickly learned **Webflow**, **WordPress**, **PHP**

Teaching Assistant | CodeDay Labs | July–August 2021
- Mentored/advised college and high school students in software development
- Guided participants through troubleshooting and debugging
- Leveraged knowledge in a **vast array of technologies** and general SWE skills

Engineering Intern | Kernel Labs | Seattle, WA | September 2019–June 2021
Assisted with hardware/software R&D on robotics project & open source COVID ventilator
- Developed core product with **Python**, **machine learning** (**Keras**, **Numpy**, etc), **computer vision**
- Prototyped **PCBs** w/ **KiCad** & **electrical circuits**. Developed **embedded firmware** for microcontrollers in **C++**
- **Researched**, implemented alternative components and systems, improving cost-effectiveness and manufacturability
- Wrote reproducible support **documentation** to improve manufacturability
- Leveraged knowledge in **prototyping**, **embedded firmware**, **hardware design**, **ML**, **Python**

Founder | KeyPCB | Seattle, WA | April 2018–2021
Offered custom keyboard-related services, sold keyboard kits
- Realized customers' ideas by designing keyboard **circuit boards** on commission
- **Manufactured and sold** innovative custom keyboard kits at affordable prices
- Leveraged knowledge in **prototyping**, **KiCad**, **PCBmodE**, **electrical design**

Programming Intern | Bellevue School District | Bellevue, WA | November 2018–June 2019
Designed/implemented change management web app for school district IT to debug systems
- **Prototyped** and **iterated** on app based on feedback from department
- Enabled efficient resolution of issues through a more robust change control system
- Leveraged knowledge in **HTML/CSS/JS**; quickly learned **C#**, **ASP.NET**, **SQL**

Skills

HTML/CSS, JavaScript, TypeScript, Node.js, React, GraphQL, web platform, C, C++, embedded firmware, hardware design, prototyping, Onshape, CAD, Figma, SQL, Python, C#, PHP, Go, Git, Linux