B Smith

Education

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

Relevant coursework: CSCI 389 PL Design/Implementation, CSCI 382 Algorithms & Data Structures

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 <u>Modular Things</u>, a framework for plug-and-play virtualized hardware (**coauthor** on paper, accepted to **ACM CHI '23** conference)
- Designed an <u>inexpensive</u>, <u>hackable drawing machine</u> in **Onshape CAD** + wrote supporting documentation to introduce students to digital fabrication
- · Coded a <u>fully browser-based IDE</u> 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 <u>a tool to automate</u> 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

[see personal projects on portfolio website]

Skills

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