Carson W. Boden

carson.boden@gmail.com | carsonboden.com | Seattle, WA

EXPERIENCE

Qumulo, Seattle, WA — *Member of Technical Staff (Software Eng.)*
APRIL 2020 - MAY 2022

Helped design and develop a max-flow algorithm for storage layout, enabling customers to cluster nodes regardless of their underlying hardware. Productized a variety of customer-facing scripts, allowing our customer success team to more efficiently address issues in the field. Led engineering onboarding and drove improvements to materials and processes to enable new hires to comfortably adjust to their team.

Ocient, Chicago, IL — *Software Eng. Intern*
MAY 2019 - AUGUST 2019

Contributed to the development of an exabyte-scale distributed database. Designed testing framework to inject errors into system calls made by the database to simulate failed hardware and improve fault tolerance. Coupled testing output with JIRA tracking to enable teams to quickly determine how their tests are performing on nightly builds. Optimized the database's distributed consensus protocol.

Qualcomm, San Diego, CA — *DDR/CPU Testing Software Eng. Intern*
MAY 2018 - AUGUST 2018

Designed testing infrastructure for debugging DDR systems. Developed automation framework for analyzing binary dumps from Android devices to speed up debugging process. Tools will be sent to third-parties for use, including Samsung.

Amazon, Seattle, WA — *Digital Content & Commerce Software Eng. Intern*
JUNE 2017 - SEPTEMBER 2017

Designed, developed, and tested tier-1 storage services and solutions. Created an onboarding UI for a shadowtesting framework allowing users to utilize the services faster and optimized settings for internal use.

EDUCATION

University of Michigan, Ann Arbor — *Master's in Computer Science*
JANUARY 2019 - DECEMBER 2019 / GPA - **3.97 / 4.0**

University of Michigan, Ann Arbor — *Bach. in Computer Engineering*
SEPTEMBER 2015 - DECEMBER 2018 / GPA - **3.80 / 4.0** / Summa Cum Laude

ACADEMIC PURSUITS

University of Michigan, Ann Arbor, MI — *Lecturer, GSI, Instr. Aide*
JANUARY 2018 - DECEMBER 2019

Helped manage the staff of 13+ aides and taught a class of around 600 students. Personally introduced new content to the course such as a revamped autograder, updated admin documents for students, and revised lecture and discussion slides.

Computer Arch. Major Design, Ann Arbor, MI — *Computer Processor*
JANUARY 2018 - MAY 2018

Prototyped and programmed a superscalar, out-of-order processor which used hardware prefetching, advanced branch prediction, and cache enhancements such as non-blocking accesses and a victim cache. Time-intensive, two month experience for five team members, spent designing, testing, and documenting entire process.

VALUES

Climate Crisis, Education for All, Public Policy

PROGRAMMING LANGUAGES

Proficient: C, C#, C++, Java, Python, Rust

Experienced: ARMv8, CSS, HTML, JavaScript, Swift, SystemVerilog, TypeScript, XAML

Familiarized: Angular, Go, JQuery, Ruby, SQL

DEVELOPMENT SOFTWARE

Proficient: Atom, Eclipse, Git, Libero, Linux, Mercurial, Ubuntu, Vim, Visual Studio, VS Code

Experienced: Android Studio, Quartus, Xcode

MISCELLANEOUS SKILLS

Game Design: Amethyst, Bevy, Monogame, SDL

Media Editing: AfterEffects, Inkscape, GIMP, Photoshop