

CALEB SMITH

SOFTWARE ENGINEER INTERN

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LANGUAGES

- C++
- Rust
- C#
- Golang
- TypeScript
- ReactJS
- Python

TOOLS

- git
- Linux
- SQLite
- SQL Server
- Cassandra (NoSQL)
- Unit testing with mocked dependencies
- Agile methods

EDUCATION

University of Michigan Ann Arbor

Aug '20 – Expected May '24

Computer Science Junior, Ross Business Minor, 3.95 GPA

- Completed Courses: Data Structures & Algorithms, Discrete Math, Applied Computational ML, Internet Foundations, Linear Algebra, Multivariate Calculus
- In-progress Courses: Computer Organization, CS Foundations
- Tau Beta Pi (Engineering Honor Society); Eta Kappa Nu (IEEE CS Honor Society)

International Academy of Macomb

Aug '16 – May '20

Valedictorian at #1 Magnet School in the Nation

- 4.4 GPA, 35 ACT, 1550 SAT

WORK EXPERIENCE

DataStax – Software Engineer Intern

Jun '22 – Aug '22

Wrote greenfield mobile library to cache cloud database in 10 weeks.

- Devised Android library in Java to abstract SQLite cache as document store using multiple threads and asynchronous I/O.
- Designed and implemented testable client sync engine and API server in Rust that kept multiple concurrent mobile clients in sync with each other and with a Cassandra cloud database instance through event-driven Pub/Sub over gRPC.
- Collaborated with 2 mentors for design and with partner for implementation.

Autobooks – Software Developer Intern

Jan '21 – Aug '21

Contributed to full stack Fintech web app full time for 8 months.

- Acted as full-fledged member on rotation through 3 mid-sized agile teams.
- Constructed proof of concept backend integration enabling 6 new partner banks.
- Contributed to “Instant Payment Mode” feature enabling 30% transaction upcharge.
- Refactored legacy .NET APIs and SQL Server Stored Procedures to follow SOLID principles and move business logic out of the database.
- Extended TypeScript end-to-end test suite which validated all new code via CI/CD.

FIRST Robotics Competition Team – Lead Programmer

Aug '17 – May '20

Led development of high school robot software with small team for 3 years.

- Architected and implemented human-controlled and autonomous LabVIEW code.
- Mentored 10 students through meaningful sub-projects and pair programming.
- Grew the sub-team from 4 to 9 students, half of whom still code.

PROJECTS

Personal Projects

Apr '22 – Present

- Work-in-progress full-stack web app (ReactJS, Golang)
- Sudoku solver (C++)

School Projects

Aug '20 – Present

- Assembler and simulator for simple assembly language (C)
- MVP SQL database REPL with joins and primary indexes (C++)
- Stock market simulator (C++)
- Euchre simulator REPL with human and AI players (C++)
- Traveling salesperson problem solver with $O(n!)$ optimal and $O(n^2)$ fast modes (C++)