

David Siher

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Senior Computer Science and Math student at Cornell University

Skills

- **Languages** – Java, Python, JavaScript, C++, C#, OCaml, Rust, Slang, Lua, HTML/CSS, C, RISC-V Assembly, Coq
- **Technologies** – scikit-learn, Jupyter Notebook, React, Vue.js, Express, Node.js, Linux, MongoDB, Heroku, Git, Excel

Projects/Experience

Cornell Capra

Undergraduate Researcher

01/2021-Present

Working to introduce heterogenous types to Slang, an open-source shader language hosted on Github. The Slang compiler is written mainly in C/C++. Previously worked on Gator, a graphics language written in OCaml and also worked on bindgroup efficiency using wgpu, a graphics library for Rust.

Cornell University

Teaching Assistant (Formal Verification Class)

01/2022-Present

Hold office hours for groups of around 5 students and lead weekly discussion section with 10 students on the formal verification of programs using Coq. Other topics of discussion include type derivations, deductive logic, and the calculus of inductive constructions.

Tako: Chess Engine

07/2020-Present

Working on a high-level chess engine built from scratch in C/C++. Will conform to universal chess interface (UCI) standards and be able to play on open-source chess website lichess, as well as compete against other existing chess engines in order to be properly ranked.

Cornell University

Teacher Assistant (Functional Programming Class)

08/2020-05/2021

Planned and hosted weekly discussion sections teaching new functional programming concepts (in OCaml) to groups of around 15 students. Advised and oversaw 23 students on their final group projects.

Workista

Software Developer

05/2020-11/2020

Developed the backend for a web app using React and Node.js. Created an account system using MongoDB and Mongoose, and integrated Socket.io for a real time chatting service.

Education

B.A. in Computer Science and Mathematics (3.507 GPA), May 2022, Cornell University, Ithaca, NY