

# Joshua Nelson

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jyn.dev | github.com/jyn514 | linkedin.com/in/joshuayn

## Education

**B.S. Computer Science and B. S. Mathematics**

May 2021

**University of South Carolina, Columbia, SC**

GPA: 3.86

## Skills

- Expert in Rust
- Skilled with C, Bash, Python, Java, JavaScript, SQL
- Knowledge of C++, x86 Assembly, MIPS, Haskell, Scheme
- Technologies: LLVM, Cranelift, git, make, docker, NGINX, Linux

## Experience

**Systems Engineer** – Cloudflare

June 2021 – Present

- Integrated a distributed WASM runtime with Chrome Devtools
- Added HTTP/3 (QUIC) interception support for a Secure Web Gateway
- Built internal tooling for diagnosing issues with distributed systems
- Decreased project build times by more than 20%

**Team Lead of Docs.rs** – The Rust Programming Language

Oct. 2019 – Present

- Maintained the docs.rs project and recruited 2 other team members
- Decreased memory usage when parsing web files by a factor of 13
- Created a deploy system used in production by 600,000 users daily

**Team Lead of Rustdoc** – The Rust Programming Language

July 2020 – Jan. 2022

- Stabilized intra-doc links
- Made it easier to contribute to rustc and documented compiler internals
- Worked asynchronously with peers from many different cultures and time zones

**Software Engineer** – YottaDB, Malvern, Pennsylvania

Dec. 2019 – Present

- Designed a Rust API for an existing C codebase
- Implemented various SQL features for Octo, an SQL frontend for the main database
- Improved the continuous integration and deployment systems for various projects

## Projects

- C compiler written in Rust, using a Cranelift backend: [github.com/jyn514/saltwater](https://github.com/jyn514/saltwater)
- Web server written in C: [github.com/jyn514/threaded-server](https://github.com/jyn514/threaded-server)
- Contributed to a Unix shell written in Python: [github.com/oilshell/oil](https://github.com/oilshell/oil)
- Contributed to LOL HTML, a streaming HTML parser written in Rust