

# > Jynn Nelson

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## Experience

### **Software Engineer**—YottaDB

December 2019–May 2021; November 2024–

- Designed an idiomatic **Rust** API for an in-memory threaded database framework
- Refactored an existing unsafe **Rust** codebase to be memory-safe
- Implemented "no new warnings" linting for a 40-year-old **C** codebase
- Wrote tooling to keep a 3000 line error reference in sync with the underlying code

### **Senior Programmer**—TCDI

May 2024–August 2024

- Worked on a Postgres extension module written in **Rust**
- Designed and implemented a system for crash-consistency from scratch
- Researched and solved a 10-year-old bug in the rust standard library runtime

### **Senior Rust Engineer**—Redjack

January 2023–April 2024

- Refactored data processing to be massively parallel, decreasing runtime tenfold
- Redesigned the internal release process to be replicable and convenient
- Avoided spending two months building the wrong feature
- Taught an hour-long weekly class on **Rust** to 5 other engineers at the company

### **Independent Contributor**—Rust Language

October 2019–July 2023

- Founded the bootstrap team and decreased tooling build times by a factor of 9
- Led the docs.rs team and recruited 2 other team members
- Led the rustdoc team and stabilized intra-doc links
- Conducted user studies to holistically improve tooling, including documentation

### **Systems Engineer**—Cloudflare

June 2021–December 2022

- 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%

## Skills

- Expert in **Rust**
- Skilled with **C**, **bash**, **python**
- Experience with networking, databases, compilers, build systems
- Documentation and technical writing

## Projects

- **C** compiler written in **Rust**, using Cranelift: [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)
- Macro finding the size of a future at compile time: [github.com/jyn514/size-of-trait](https://github.com/jyn514/size-of-trait)

## Education

**B.S. Computer Science and B.S. Mathematics**—University of South Carolina