

# NATHAN TEOH

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## WORK EXPERIENCE

### Enhanced Software Products

January 2022 – Present  
Spokane Valley

Software Engineer

- Implemented a Rust-based REST API to facilitate communication between third-party services and our flagship product, significantly improving payment processing speed
  - Streamlined build and deployment processes using Azure Pipelines, reducing manual effort and ensuring consistent and efficient releases
  - Modernized a legacy C++ codebase by updating toolsets, replacing deprecated functions, and eliminating unsafe code by leveraging Rust equivalents via FFI
  - Optimized existing C# code by converting single-threaded and blocking code to multi-threaded and non-blocking, preventing deadlocks to the databases
  - Integrated the TWAIN library, expanding peripheral compatibility for our C++ product by supporting 100+ additional devices and enhancing overall functionality
  - Designed and developed efficient SQL queries to retrieve, analyze, and manipulate data from our relational databases, supporting various reporting and data-driven functionalities within the application.
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## PERSONAL PROJECTS

### Spokane-Rust meetup

<https://www.spokanerust.com/>

Founded and actively participate in the Spokane Rust user group, fostering a vibrant community to learn, share, and promote the adoption of Rust

### freshair.farm Ansible, Docker, Cloudflare, Traefik

<https://www.freshair.farm>

A curated collection of self-hosted and open-source services designed to empower you with control over your data and promote decentralization

### ditherpunk Rust

<https://git.freshair.farm/nathan/dither>

A command-line tool written in Rust for converting images to a limited color palette using dithering techniques, creating visually distinctive aesthetics

### Pong Rust, Bevy, ECS

<https://git.freshair.farm/nathan/pongers>

An experimental work-in-progress project recreating the classic Pong game using the Bevy game engine and the Entity-Component-System (ECS)

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## SKILLS

- Programming Languages: C, C++, C#, Rust, SQL, Python
  - Tools: Linux, Git, Qemu, Scikit-learn, Tokio, .Net, Azure
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## EDUCATION

### Eastern Washington University

Aug 2018 – Aug 2021  
Cheney, WA

BS Computer Science & Data Science

- GPA: 3.4