

Ethan Rule

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Education

Washington State University

Pullman, WA

Bachelor of Science in Computer Science, GPA 3.4

Aug 2020 - Dec 2024

Relevant Coursework - OOP Software Principles, Systems Programming C/C++, Parallel Computing in C
Computer Architecture, Advanced Data Structures C/C++, 3D Digital Animation, Linear Algebra.

Projects

Database Engine - Rust | [GitHub](#)

Apr 2025 - Sep 2025

- Built a database engine with B-Tree storage, BSON serialization, and an LRU cache.
- Wrote property tests to discover bugs from type casts such as f32 to f64 and cases like i64 to i32.
- Implemented custom file system paging and idiomatic Rust error handling (fewer unwraps).
- Designed custom display traits for error handling to assist in narrowing down errors from unique database parts.

CPU Process Scheduler - C | [GitHub](#)

Oct 2023 - Nov 2023

- Implemented three CPU scheduling algorithms (FCFS, Round Robin, SJF).
- Designed data structures to track process states, wait times, turnaround times, and CPU utilization.
- Compared algorithm performance through metric analysis, including average wait time.
- Managed process queues and context switching logic with memory allocation.

Rudarz.com - Founder | Typescript | [Website](#)

Aug 2023 - Present

- Built a SaaS (Next.js, Node.js, PostgreSQL, and Stripe), generating \$5,000+ revenue from 300+ paying customers. Utilized by tens of thousands of players to secure higher ratings in World of Warcraft.
- Automated sales with authentication using Google OAuth and payments using Stripe + PostgreSQL.
- Deployed GitHub repository on Vercel to utilize their automatic CI/CD and PostgreSQL platform.
- Modularized React components to prevent repeating the same code on multiple pages/components.

Technical Skills

Systems Programming + Game Development: C/C++, Rust.

Web Development: Typescript, Javascript, React, Next.js, Tailwind CSS.

Other Languages: Python, C#, Kotlin.

Platforms & Tools: Git, PostgreSQL, MongoDB, Vercel, AWS, Unreal Engine.

Technical Interests

Game engine development, systems programming, and database internals. 10-year competitive World of Warcraft player with multiple tournament top 8 finishes and [#1 ladder rankings](#).