Adam McNeil **Profile** 

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I am a graduate student at the University of Illinois Urbana-Champaign studying computer science. My course work has focused on distributed systems and data storage. I have the most professional experience with Java, SQL, and Git. However, I have experience in a wide range of languages and technologies (Go, Rust, OCaml, NeoVim, Linux, Svelte, Tailwind, JavaScript, CSS, C#, Unity, Kotlin, MongoDB).

## Experience

2023 - 2024 Two Years

NISC - Software Developer Intern - Lake St. Louis, Missouri

- Helped maintain batch processing workflow written in Java.
- Streamlined data retrieval process from an Oracle database.
- Created test environment for migrating to Postgres Database.
- Wrote scripts in PowerShell to automate code base analysis and modification.

TECHNOLOGY: Java, PowerShell, Git, PostgreSQL, Oracle, Docker, Gradle, Spring Boot

2022 Nine months Oasis Digital - Software Development Intern - Chesterfield, Missouri

- Designed and developed a 3D project planning application using Unity.
- Used Firebase to manage and store persistent data. - Competed in a company-wide game jam, successfully developing a game within a single day.

TECHNOLOGY: C#, Unity, Git, FireBase

**Projects** 2021, 2025

Lichess Engine - https://github.com/adamMcneil/chess-engine

- Developed a Lichess engine bot in Java.
- Used flame graphs and other performance metrics to identify slow potion of code that need to be optimized.
- Developed a unit and integration test suite.
- Implemented minimax algorithm with alpha-beta pruning to select the best move.

TECHNOLOGY: Java, IntelliJ, Gradle

2023 - 2024

Fullstack Project - https://github.com/adamMcneil/mcneil-web-games

- Developed web API in Rust programming language using Rocket Rust web framework.
- Developed front end in Svelte and Tailwind.
- Deployed the back-end on Render.
- Deployed the front-end on GitHub pages.

TECHNOLOGY: Rust, Rocket, Svelte, TypeScript, Tailwind, Render

2024

Streaming Platform - Distributed Systems Course Project

- Developed a distributed group membership service.
- Developed a distributed file system using the group membership service.
- Developed a distributed stream-processing framework similar to Spark Streaming.
- Implemented with Go and gRPC.
- Used Docker to create virtual testing environment.

TECHNOLOGY: Go, Protocol Buffers, gRPC, Docker, Spark Streaming, TCP, UDP

2024

**UDP** Controller

- Implemented simple game in Bevy to act as a server.
- Created a mobile app that communicates over the local area network with a central server using Rocket Rust web framework.

TECHNOLOGY: Rust, Bevy, Android Studio, Kotlin

Education

Aug 2024 -May 2025  $One\ Year$ 

University of Illinois Urbana Champaign - Urbana Champaign, Illinois - GPA: 3.77

Master of Computer Science

Course Work: Distributed Systems, Database Systems

Aug 2021 -

University of Science and Technology - ROLLA, MISSOURI - GPA: 3.94

May 2024 Three Years

Bachelor of Science in Computer Science, Minor in Mathematics