

Joseph Wilson

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EDUCATION

The University of Texas at Austin

Austin, TX

Bachelor of Science in Computer Science

Aug. 2022 – Dec. 2025

Relevant Coursework: Operating Systems, Networks, Algorithms, Programming for Correctness and Performance, Advanced Computer Architecture

EXPERIENCE

Undergraduate Course Assistant

Austin, TX

Operating Systems

Aug. 2024 – May 2025

- Helped students understand coursework for Operating Systems
- Found race-conditions in students code to help students understand how to prevent them

Amazon, Amazon AGI

Seattle, WA

Software Development Engineer Intern

June 2024 – Aug. 2024

- Integrated a new metadata storage into the teams website, allowing high quality dataset metadata to be displayed to users
- Improved the visibility of critical pieces of dataset metadata, leading users to input more accurate entries for said metadata
- Integrated a service containing datasets lineage so users could see what sources a dataset came from
- Rewrote neptune queries to include the links connecting members of a datasets lineage

Amazon, Amazon AGI

Seattle, WA

Software Development Engineer Intern

May 2023 – Aug. 2023

- Created a React component to show datasets that were similar to what the user was currently viewing
- Created vector embeddings for datasets to determine similarity using AWS Lambda and Gensim
- Used OpenSearch Service to retrieve similar datasets using k-Nearest Neighbors (k-NN) search

PROJECTS

Wheatley Bot | github.com/joecwilson/wheatley_bot/ | Rust

March 2023 – January 2024

- Created a chess bot designed to lose at chess while assuming that the other player was also finding the optimal way to lose
- Used the Universal Chess Interface to communicate with chess GUI's

Tiny Pomodoro Timer | github.com/joecwilson/tinyTimer/ | X64 ASM

June 2023 – July 2023

- Created a Pomodoro timer 944 bytes in size
- Added a target to base64 encode the binary and create a QR code using the base64 encoded string

Unnamed Full Stack Project | github.com/joecwilson/FullStack/ | React, Django, SQLite3 Aug. 2022 – Jan. 2023

- Created a React interface to display an additional question once the previous question was answered correctly
- Created a Django application to make it possible for administrators to easily add questions and let users choose from a variety of question groups
- Used a SQLite3 database to store question groups, and the questions in question groups

Fancy Notes | github.com/joecwilson/Fancy_Notes/ | Kotlin, Android SDK, JUnit

Jun. 2022 – Aug. 2022

- Utilized Room to create a database to prevent losing notes when the app was closed
- Implemented JUnit testing to ensure that code worked as expected and changes to functionality would not impede the user experience
- Developed with Kotlin to leverage coroutines and increased type safety

TECHNICAL SKILLS

Languages: Python, C, Rust, X64 ASM, Java, JavaScript, HTML/CSS