

IHSAAN YASIN

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Education

University of Michigan

Expected May 2025

B.S.E. in Computer Science, Minor in Mathematics

Major GPA: 3.9

- **Courses:** System Design of Search Engines, Game Engine Architecture, Operating Systems, Computer Networks, Database Management Systems, Data Structures and Algorithms, Web Systems, Computer Theory, Computer Architecture, Software Engineering, Statistics, Web Development, Discrete Math

Experience

Meta

May 2025 - August 2025

Software Engineering Intern

Menlo Park, California

- Machine Learning Infra team, C++

Courier Health (Series-A Startup)

Jun 2024 - Aug 2024

Software Engineering Intern

New York City, New York

- Built a solution to increase the **visibility of 100,000 monthly ingested files**, integrating error logging using Javascript (TS), RDS, MikroORM, and AWS, culminating in an Ingest Dashboard, **reducing review time by 80%**
- Used React to build a system to replace manual schema generation, **saving 30 hours of engineering time per client**
- Engineered a data alarm system using ReactJS, GraphQL, and AWS Lambdas that detected and alerted teams to missing or invalid files, exposing dozens of data files as problematic and **accelerating issue resolution by 40%**

Bluecross Blue Shield Michigan

Jun 2023 - Aug 2023

Software Engineering Intern

Detroit, Michigan

- Designed and built a Flask and MongoDB Database REST API to effectively centralize internal company resources
- Engineered a system with ReactJS to facilitate tracking training progress and auto followups, **saving hours of time**
- Designed a workflow in Python that facilitates project confirmation status and outreach with project leads, more flow

University of Michigan EECS

Aug. 2023 - Jan. 2024

Data Structures Teaching Assistant

Ann Arbor, Michigan

- Taught a class of **1000 students**, hosting **50+ office hours**, preparing exams, and grading assignments
- Lead weekly labs of **30 students**, distilling information and communicating core C++ coding principles

RediMinds

Jun. 2022 - Jan. 2023

Software Engineering Intern

Southfield, Michigan

- Built an R&D medical health application, attaining **\$70K project funding** after presenting our MVP
- Built a Python pipeline for CT scans, leading to **77+% processing efficiency and 40% cost reduction**
- Implemented **10+ features of the app**, developing model importing, storage, animation, and backend logic features

Projects

[Micrograd++: Neural Network](#) | C++

- Created a full neural network library in C++, allowing you to build and train your own models
- Created Value, Neurons, single layer Perceptrons, and multilayer Perceptron abstractions
- Used my library successfully as a binary classifier in different scenarios such as image classification

[Algorithmic Trading Exchange](#) | C++, ReactJS, Flask, Express

- Developed an algorithmic trading platform to simulate exchange operations and facilitate trading strategies
- Used C++ to create an efficient Orderbook with a FIFO matching algorithm to execute trades based on a price-time priority, and designed an interface for the Kraken API to import historical market data
- Used React to build an app interface to interact with the Trade Engine API

[Operating System Thread Library](#) | C++

- Implemented a kernel-level C++ thread library on Unix, handling CPU booting, thread management, management of 50+ CPUs, interrupts, atomicity, and FIFO scheduling order. Designed and implemented spin-locks, mutexes, and conditional variables using Unix context management

[Operating System Virtual Memory Pager](#) | C++, Virtual Memory

- Designed a virtual memory page which managed multiple processes and supported swap-backed and file-backed memory pages (similar to Unix `mmap()`). Managed process creation, page faults, & MMU bits, process forking, process destruction, and swap disk all while supporting copy-on-write.

Skills

Languages: C/C++, Python, Typescript, Javascript, Swift, Dart, Java, SQL/SQLite

Frameworks/other: AWS, ReactJS, Flask, FastAPI, MikroORM, PostgreSQL, Selenium, MongoDB, Pandas, Numpy, Sklearn, Firebase, Docker, Bootstrap, Jenkins, MySQL, Hadoop, Linux, ETL Pipelines, NodeJS, Relational Databases