Jawad Alsahlani

📞 347-277-3650   ✉ jawadals@umich.edu   🌐 https://javvad.dev   📍 Ann Arbor, MI   US Citizen

EDUCATION

University of Michigan — Ann Arbor, MI
B.S. in Computer Science and Engineering | GPA: 3.5/4.0 — *Expected May 2026*

RELEVANT COURSEWORK

Data Structures & Algorithms | Operating Systems | Computer Networks | Distributed Systems | Cybersecurity | App Development | Web Systems | Database Management | Game Development | Game Engine Architecture

EXPERIENCE

The Mainstay Foundation — May 2025 – Aug 2025
Software Developer Intern | Node.js, Express, React, PHP, OpenAI API, GoHighLevel, Render — *Ann Arbor, MI*
- Stabilized checkout flows, resolving duplicate cart and quantity-sync bugs; reduced donor support tickets by **40%**.
- Built secure **Node.js/Express proxy** to GoHighLevel API, deployed on Render, handling **500+ organizational contacts** with request logging and env-var management.
- Built full-stack AI document chat assistant using **OpenAI v2 API** and vector embeddings, enabling users to query uploaded PDFs with persistent file storage and streaming responses.

Bayn Financial LLC — June 2025 – Sept 2025
Co-Founder & Software Engineer | Python, QuantConnect, Data Pipelines — *Ann Arbor, MI*
- Built Python-based algorithmic trading platform with backtesting infrastructure and risk controls, processing 10+ years of historical market data.
- Engineered data pipelines and strategy evaluation framework testing 200+ trading strategies; identified strategies achieving **25% annualized returns (Sharpe 1.5)**.

Al-Khoei Foundation — Jan 2019 – Sept 2025
Data Systems & Finance Operations | Python, ETL, SQL — *New York, NY*
- Led **4-person finance team** managing **$500K+ annual operations**; maintained **99.5% transaction accuracy.**
- Built Python ETL pipelines eliminating **90% duplicate donor records** across 3 databases, consolidating **50K records** into single source of truth.
- Automated monthly closes and reconciliations, **reducing processing time by 50%** (8h → 4h)

PROJECTS

Multithreaded OS Kernel | *C++, Concurrency, Synchronization*
- Implemented thread scheduler, spinlocks, condition variables supporting **32+ concurrent threads** with **99.9% correctness** verified through 1000+ test cases.
- Designed deadlock-free synchronization, achieving **zero race conditions** under 64+ thread stress tests.

Distributed Key-Value Store | *Go, Paxos, Sharding*
- Implemented replicated key-value store using **Paxos** for linearizable updates across **fault-tolerant shards**.
- Supported dynamic node joining and partition tolerance, enabling scalable storage with auto failover and recovery.

Distributed Search Engine | *Python, MapReduce, TF-IDF, PageRank*
- Built scalable search with segmented inverted indexing, MapReduce pipelines, **TF-IDF ranking**, and **PageRank weighting** exposed via REST API.

Stripe MRR Dashboard | *Python, BigQuery, SQL, React*
- Built ETL pipeline loading Stripe subscriptions/invoices into BigQuery; authored SQL computing **monthly recurring revenue** with live React dashboard visualization.

Planeteer | *Unity, C#, Event Systems, Procedural Generation*
- Solo-developed 2D planetary mining game with **destructible circular worlds**, tile-based drilling with variable hardness, and event-driven upgrade systems.

TECHNICAL SKILLS & LEADERSHIP

Languages: C++, C, C#, Python, Go, SQL, Swift, HTML/CSS
Frameworks & Tools: React, Node.js, Express, Flask, Git, Docker, Unity, Jupyter, Figma, Vercel, Render
Concepts: Distributed Systems, REST APIs, ETL Pipelines, CI/CD, Agile/Scrum
Leadership: Director of Finance, Omega Beta Eta (Aug 2023 – May 2024)