

Meghna Reddy

meghnareddy.com | meghnar@umich.edu | linkedin.com/in/reddymeghna | github.com/meghnar05

Education

University of Michigan College of Engineering

Ann Arbor, MI

BSE in Computer Science, Minors in Mathematics & User Experience Design

May 2027

- **Coursework:** Data Structures & Algorithms, Operating Systems, Machine Learning, Unix Programming, Web Systems, Computer Security, Database Management, Computer Architecture, Object Oriented Programming

Experience

Snap Inc.

June 2026 – Present

Software Engineer Intern

Palo Alto, CA

- Backend retrieval team - ML Platform

Tesla

May 2025 – Aug. 2025

Software Engineer Intern

Palo Alto, CA

- Scaled backend infrastructure powering 3D design tools used in Tesla's vehicle system development.
- Built & maintained containerized applications deployed via Docker and Kubernetes to enhance real-time data flow and remove latency for expensive database requests. Ensured scalability by monitoring L4/L7 load balancing and ingresses.
- Tested speed and reliability of builds by monitoring Jenkins CI/CD pipelines, debugging build logs, and testing in development, staging, and production environments.

Maffeo Drinks

Jan. 2026 – May 2026

Software Engineer

Prague, Czech Republic

- Designed and built a RESTful API backend using Node.js, Express, and Supabase PostgreSQL for a paid learning platform serving structured course content across 6 learning modules.
- Integrated Stripe Checkout with webhook-based payment verification, content gating for paid users, and automated account activation upon successful payment.

Neudesic, an IBM Company

May 2024 – Aug. 2024

Software Developer Engineer Intern

Phoenix, AZ

- Built an iOS mobile app using SwiftUI for 400,000+ users nationwide, using Figma & Adobe XD to iterate on previous homepage design, enhancing user-friendliness. Increased overall app engagement by approx. 20%.
- Implemented a basic liveness detection algorithm leveraging Apple Vision API. Applied eye movement tracking and smile detection to enhance liveness validation and ensure accurate user authentication in real-time.

V1 Michigan

Sept. 2023 – Present

Software Engineer

Ann Arbor, MI

- Launched ClosetSwap, an online marketplace for University of Michigan students to rent clothing from one another; pitched at Demo Day & presented to YCombinator Founders, Neo Scholars, and Contrary Venture Capitalists.
- Employed Supabase API to allow lenders to post descriptions and images of clothes; enabled renters to filter clothing based on multiple statistics, add items to cart, and save them for later.

Projects

KeyScribe | *React.js, TypeScript, Tone.js, Web MIDI API, MusicXML, OpenSheetMusicDisplay*

- Built an end-to-end music transcription system that records live keyboard input and produces editable sheet music, integrating real-time MIDI processing, visualization, playback, and export workflows.
- Designed a compiler for musical notation that translates performance data into symbolic score representations, implementing quantization, harmonic analysis, measure segmentation, chord grouping, and notation generation algorithms.

City Prices as a Development Signal | *Python, pandas, scikit-learn, SHAP, Seaborn, Jupyter*

- Trained a RandomizedSearchCV-tuned gradient boosting classifier on 5,000 city-level price observations across two joined datasets, achieving 88% weighted F1 with stratified CV and balanced class weighting.
- Engineered region-normalized price ratios via groupby transforms and used SHAP TreeExplainer to identify salary-to-regional-median as the dominant predictive feature.

Thread Library | *C++, Multithreading, Mutexes, Condition Variables, Semaphores, Unix*

- Designed and implemented a kernel-level C++20 threading library on Unix, managing thread creation and FIFO scheduling across 50+ CPUs, CPU booting, interprocess interrupts, and atomocity.
- Enabled fine-grained parallel execution and preemptive multitasking by implementing spinlocks, mutexes, and condition variables, allowing concurrency control across multi-core systems.

Skills

Languages: C++, Python, Java, JavaScript, Swift, HTML, Tailwind CSS, SCSS, Julia, R

Technologies/Frameworks: React, Next.js, Node.js, pandas, scikit-learn, Kubernetes, Docker, CI/CD, Linux/Unix, Flask

Certifications: [Microsoft Azure AI Fundamentals – AI 900](#), [Microsoft Azure Fundamentals – AZ 900](#), [C++](#)