

Education

UNIVERSITY OF MICHIGAN | *College of Engineering*
B.S.E in Computer Science & Engineering
GPA: 3.6 – Dean's List & University Honors

Ann Arbor, MI
May 2024 Graduation

Professional Experience

AMAZON WEB SERVICES - *Software Development Engineer*
New York, NY

August 2024 - Present

- Worked in AWS Billing on automation for Private Pricing Agreements (PPAs)—multi-billion-dollar enterprise contracts and terabytes of contract data that are processed by our billing pipeline.
- Spearheaded development and launch of an internal billing audit platform that identified ingestion discrepancies and pricing errors, improving billing accuracy by 10%, reducing manual audit load by 30–40 hours per month, and identified 45+ billing errors mitigating over \$400 Million in potential misbilling to AWS Customers.
- Built an optimized contract ingestion algorithm for AWS Enterprise Support, enabling automated ingestion for 7,000+ contracts and contributing directly to AWS Billing's **AWS-level goal** of achieving 60% PPA auto-ingestion.
- Built an event-driven ETL pipeline for real-time analytics on AWS Billing's infrastructure and manual operations. This included live data feeds of over 400k+ data points across tickets, contracts, approvals, and other tasks. The data helped senior management make key decisions towards efficiency and operational gains, leading to the achievement of **3+ AWS Level Goals**.

AMAZON - *Software Development Engineering Intern*
Boston, MA

May 2023 - August 2023

- Built an Android/Kotlin Debug Overlay UI for Amazon's internal Echo Show OS to surface real-time metadata and backend state.
- Improved developer debugging efficiency by 10–15% through live on-device telemetry visualization.
- Gained experience navigating Amazon's internal cloud stacks, compilers, and deployment systems.

LOOKDEEP HEALTH - *Software Development Intern*
Oakland, CA

May 2022 - August 2022

- Built a Python/OpenCV Inference Visualizer using GCP Pub/Sub + REST APIs to overlay TensorFlow model output on live patient video.
- Aggregated 8,000+ hours of test footage into a scalable QA search tool used for model validation.
- Developed a clinician-facing dashboard summarizing 200–300 hours of overnight patient feeds across 3 hospitals.

Projects

CIFAR-10 customized cGAN (Conditional Generative Adversarial Network)

November 2023

- Developed a 12-layer convolutional cGAN in PyTorch to generate labeled images from CIFAR-10 (60k+ samples).
- Achieved ~50–60% visual accuracy in image generation
- Published paper with team to the Computer Vision Foundation (CVPR)

BANTER (MOBILE IOS APP)

October-December 2023

- Built a production-level iOS sports interaction app using Swift + PostgreSQL + REST API; tested with 10+ users on Apple TestFlight
- Created a custom banter algorithm that converts decimal odds from sportsbook APIs to probabilities on a 10-50 scale.

STUDENT EXCHANGE WEBSITE (MVP)

May 2023

- Created a server-side dynamic website that is an online marketplace for students to trade and sell old college items or post housing. Operates as a “mock” craigslist with improved UI, designed for students.
- Leveraged Python Flask + SQLite frameworks with a custom tf-idf cosine similarity search engine.

STUDY ROOM BOOKER - *University of Michigan*

December 2021

- Developed an automated program to book 24-hour study rooms in Michigan's undergraduate library.
- Used a selenium web scraper running on linux chrome drivers to bypass and navigate through Umich UGL website
- Leveraged twilio auto-call API to bypass two factor authentication, and deployed application on an AWS EC2 instance for automated executions.

Leadership & Involvement

ACADEMIC CHAIR - *Delta Tau Delta Fraternity*

January 2022 - December 2022

- Managed academic resources, study sessions, and resume workshops.

POWERTRAIN ENGINEER - *Michigan Electric Racing Team*

September, 2021 - May 2022

- Designed PCB boards and microcontroller diagnostic systems for battery management.
- Programmed in HAL Embedded Systems to monitor cell voltage, temperature, and amperage output

Skills

C++, Python, Java, C, SQL, OpenCV, BigQuery, Flask, React, HTML/CSS, Javascript, Tensorflow, Pytorch, Kotlin/Swift, Matlab, Verilog, Assembly/Machine Code, Twilio, Docker. UI/UX, AWS, Shell Scripting

Personal Interests: Michigan Club Lacrosse, Cooking, Biking, Quantum Computing

