Adam Omarali

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EDUCATION

University of Toronto   Toronto, ON
Bachelor of Applied Science and Engineering in Engineering Science + PEY Co-op   *Expected Graduation: May 2027*
- **GPA:** 3.54/4.0 | Honour Roll, Schulich Scholarship valued at $120,000
- **Activities:** Socratica Meraki Host, Aerospace Flight Dynamics, Autonomous Rover, IEEE Tech Team

EXPERIENCE

Nationgraph   Toronto, ON
SWE Intern | Data Scraping, RAG, Full Stack   *June 2025 - Present*
- Used multi-step LLM, embedding and logistic regressions workflows to generate scrapers for 200,000+ unique sites at $O(n)$ cost
- Used FastAPI and NextJS to build 20+ features for full stack product
- Used Streamlit, Document Entity Enrichment, and SQL queries to allow users to interface with 200Gb+ of data

Telora Fellowship   Miami, FL
Startup Founder | Prototyping, User Interviews   *June 2024 - August 2024*
- Received $40K to start a startup and find a promising problem by talking to 300+ users
- Held customer interviews with 200+ video editors by crashing weddings, visiting studios, and warm intros
- Prototyped a scene detection sorter for wedding clips to save editors 10+ hours per edit and demoed to 10 users

FRC Robotics Team 610 - World Championship Division Finalist   North York, ON
Scouting App Lead & Robotics Programmer | Java, PID, Neo4J, NextJS, Git, Leadership   *2020 - 2023*
- Led a team of 10+ developers to create a NextJS web app to quantitatively scouted 300+ robots over 100+ matches, store data in Neo4J and display analysis on a dashboard.
- Implemented an autonomous intake management system using state machines reducing operator commands to a single button. Fine-tuned a gyro based PID Algorithm to reduce lineup time for shooting by 5 seconds

X, The Moonshot Factory (Formerly Google X)   Mountain View, CA
Student Fellow | Protyping, Research Synthesis, Data Analysis, Presentations   *July 2022*
- Prototyped a single-textile fabric that uses photochromic dye to change designs in 30 minutes
- Estimated a reduction of 90,000 litres in water usage and 400 tonnes of GHG emissions per person over 5 years
- Implemented feedback from mentors and designed a deck to pitch our solution to the CEO and leadership at X

PROJECTS

Bracket Bot | *Robotics, MQTT*   2024-2025
- Programmed a 5ft, two wheel robot to move using MQTT and Joystick inpute
- Connected Eleven Labs, GPT, and function calling to hold conversations and execute voice commands
- Analyzed kinematic data to create a bump detection algorithm that allows for autonomous navigation

Basemint - 1st Place HawkHacks | *Near, Smart Contracts, NextJS*   2024
- Created a NextJS web app that uses Near to mint 20+ NFTs created by streamers to improve fan engagement
- Implemented smart contracts to store users, creators, engagement and transfer NEAR
- Deployed the app on vercel and mainnet in 48 hours with working transactions

AI Video Clipper - Finalist Cohere Hackathon | *AI Agents, LLMs, ffmpeg*   2024
- Created an AI agent that uses Whisper to trascribe video, gpt to extract revelant sections given a prompt, and ffmpeg to clip the video and reassemble it
- Designed a streamlit web app interface to upload 40 minute videos, and get only relevant 5 minute clips in 5 minutes

SKILLS

Languages: C, Python, Java, JavaScript, TypeScript, Matlab, SystemVerilog, RISC-V
Frameworks: React, React-Native, NextJS, Express, Flask, FastAPI
Technologies: Git, bash, MongoDB, Firebase, Neo4J, PyTorch, Pandas, Numpy
Engineering: SolidWorks, Fusion360, AutoCad, Altium, Arduino, ESP32, DE1-SoC FPGA, 3D-Printing
Interests: Music Production, Baseball, Philosophy, Community Building, Storytelling