

Taha Rawjani

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EDUCATION

University of Pennsylvania

Philadelphia, PA

BSE in Computer Science, 4.0 GPA

Aug. 2026 – June 2030

- Machine Learning, Multivariable Calculus, Statistics, Physics: Mechanics, Data Structures & Algorithms

EXPERIENCE

Blue Vigil – Embedded Software Engineer

Sterling, VA

Building tethered drones for lighting

May 2026 – Present

- Developed embedded C++ firmware for a tethered drone surveillance system across 5 microcontrollers (Teensy, Raspberry Pi), implementing RS-485/MAVLink communication, flight state machines, and high-voltage power.
- Refactored multi-board firmware monorepo into modular architecture, adding safety monitors, fault handlers (HV overcurrent/AC fail), and asynchronous rollover logging.
- Developed an open-source On-The-Air (ota) remote update software and bootloader allowing for subsystem updates and debugging in the field for Teensy4.1 and ATmega boards without traditional USB uploaders.

B2Alpha.io – Cofounder, CTO

Leesburg, VA

Building an AI-native internet

Feb 2026 – Present

- Created b2a, a protocol that allows AI Agents to communicate with each other via DIDs (digital IDs). Interfaces with OpenClaw, Claude Code, MCPs, etc. Used Go for synchronization, and Rust for a phonebook.
- Built phone wrapper using Twilio to allow businesses to setup in-house AI agents in one click.
- Connected to 200+ local businesses in Northern Virginia, reached 1000+ daily AI agent users.

Maximus – Software Engineering Intern

Tysons, VA

Built AI Solutions for Contact Centers

Jun. 2025 – Aug. 2025

- Created an AWS pipeline to classify email intents, reroute emails, and autonomously respond with AI – reducing agent resolve times by 25%. Fully automatable and customizable through JSON w/ GUI configuration tool.
- Used AWS Connect, Lambda, Bedrock, EC2, Cloudwatch, Kinesis, alongside frontier AI models for reasoning.
- Pitched to Maximus CTO, handed off and documented project to Contact Center SWE team for deployment.

Blueprint.mov – Software Engineering Intern

San Francisco, CA

Fuel dead internet theory by automating marketing

Mar. 2025 – Jun. 2025

- Automated social media (TikTok and IG) marketing with AI. Used Supabase, Next.js, Langgraph, and HeyGen.
- Built product URL webscraper & video generation API backend using motion video creator
- Received Y-Combinator Interview, hit 2000+ users peak and \$3,000+ Monthly Revenue

RECOGNITION

Competitive Programming

Aug. 2023 - Present

- Codeforces Candidate Master, USACO Platinum; 1500+ problems solved. Top 0.1% blogger on Codeforces.
- 1st place Advanced Division @ Lockheed Martin CodeQuest 2024, 2026; 1st place @ UPenn PClassic Fall 2024
- Team USA for International Informatics Olympiad in Teams (IIOT) 2025, 2nd Place Team USIOT
- 1st place in Category, 4th Overall, National Cyber League Team Round Fall 2025
- Organized Academies-IT, the largest competitive programming tournament (with 200+ attendees) in Northern Virginia. Wrote problems, handled logistics, and reached out to sponsors (Jane Street, Google, AOPS, etc).

PROJECTS

MobyLabs.org - whale tracking network

Jan 2025 – Present

- Created novel whale acoustics detection model using ensemble learning and attention. Built 3D-printed buoys.
- Used Tensorflow, Pytorch for ML. ESP32 w/ C++ for buoy systems, Fusion360 for buoy design (patent pending).
- Won 4th at International Science & Engineering Fair 2025, and accepted to Ocean Sciences Meeting 2026

Neo OS

Jul. 2022 - Aug. 2025

- An operating system written from scratch in C++ and assembly, featuring custom drivers, a UNIX-based virtual file system, multithreading support, and an interactive shell with a simple scripting language (TahaScript).
- Programmed a custom image format (.nic) with 24-bit color support alongside font and VGA drivers
- Created drivers for hard drives (AHCI), floppy disks (FDC), timers (PIT, APIC), and interfaces (PS/2, PCI)