

Mustafa Akilli

mustafaakilli24@gmail.com | 302-554-2925 | [linkedin.com](#) | [github.com](#) | [MyPortfolio](#) | U.S. Citizen

EDUCATION

Delaware State University

Dover, Delaware

Bachelor of Science in Computer Science GPA: 3.85

Expected graduation: May 2027

Relevant coursework: Operating Systems, Database Systems, System Architecture, Data Science, Software Engineering

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, C++, C, C#, SQL, HTML/CSS

Frameworks & Tools: React, Vite, Next.js, Flask, FastAPI, Git, AWS, PySerial

Data/AI & Databases: PostgreSQL, NoSQL, Pandas, NumPy, YOLOv8, OpenCV

Work EXPERIENCE

Mastercard Mentorship Program

Remote

Mentee

October 2025 - May 2026

- Selected for a **competitive** 8-month **professional development program** focused on **technical** and **professional growth**.
- Gained exposure to **tech** industry standards, **Agile methodologies**, corporate problem-solving, and professional communication.
- Strengthened** financial literacy, professional networking, and **communication** skills while learning how **technical** teams **align business goals** with **user needs**.

Rudy's Family Restaurant

Harrington, Delaware

Assistant Manager

January 2020 - April 2026

- Managed daily customer-facing **operations** across seating, to-go orders, **payments**, service flow, and **issue resolution**.
- Trained staff and **identified** recurring **customer pain** points to **improve** service, **team performance**, and guest **experience**.

Braven Career Accelerator | United Airlines Capstone

Remote

Project Manager

August 2024 - December 2024

- Managed** a **5-person team** to **improve** United Airlines' economy experience, **brand loyalty**, and customer recommendations.
- Led** planning, meetings, research synthesis, and final presentation of customer pain points to corporate leaders.

PROJECTS

PictureMe | HornetHacks 2026 | 1st Place | \$2000

Dover, Delaware

Full Stack Developer | React, Vite, FastAPI, Supabase, PostgreSQL, AWS Rekognition, Cloudinary

April 2026

- Developed **PictureMe**, a **full-stack** platform that transforms large event galleries into **personalized** photo collections by connecting user identity, **private** event access, and **AI face matching**.
- Built an automated matching pipeline that uses **3-5 user enrollment selfies** to retrieve relevant images from galleries of up to **3,000 photos**, cutting manual browsing effort by **~90%**.
- Implemented **privacy** and **scalability** features including **QR-based** event entry, role-based access across 3 user types, and **automatic** 30-day media expiration, **reducing** long-term **storage** and face-index retention costs by **70%**.

PrintGuard | Innovation Venture 2.0 Powered By AWS | 2nd Place | Grand Prize \$30,000

Dover, Delaware

Full Stack Developer | Python, FastAPI, Next.js, YOLOv8, OpenCV, Supabase, PostgreSQL, TypeScript

March - April 2026

- Implemented a **computer vision monitoring** system for 3D print farms using **YOLOv8** and **OpenCV**, achieving **78% per-frame** detection **accuracy** for defects including warping, stringing, spaghetti, and detachment.
- Built a **FastAPI backend** integrated with **PySerial** for direct printer-control commands and developed a **Next.js + Supabase** web application enabling **authenticated** fleet monitoring, **live camera** feeds, and **automated email** notifications.
- Engineered a **real-time** fleet dashboard with per-printer health metrics, live streaming, and instant alerts, designed to reduce the **40%** operational overhead tied to manual monitoring in large 3D print farms.

Smooth Cruize | HenHacks 2026 | 1st Place | 45+ Universities | 470+ Participants

Newark, Delaware

Full Stack Developer | Python, FastAPI, Next.js, YOLOv8, OpenCV, PostgreSQL, TypeScript

March 2026

- Led** a team to **1st** place at **HenHacks 2026** by developing a **full-stack web application** that **automates pothole detection** using dashcam footage.
- Engineered a **Python** and **FastAPI** backend integrating a **fine-tuned YOLOv8** computer vision model and **OpenCV** to process road video, detect hazards, and automatically generate **3-5 second contextual evidence clips** for review.
- Developed a responsive **Next.js** frontend and integrated **Supabase** for **database** management, providing city maintenance teams with an actionable dashboard to review road hazards with support for **GIS-informed** maintenance.

Gone Phishin | \$1000 | HornetHacks2025

Dover, Delaware

Backend Developer | Python, Flask, JavaScript, HTML, CSS, Gemini

March 2025

- Built a Chrome extension for real-time email phishing detection directly into the browser.
- Developed a Python Flask backend connected to the Gemini API to classify email content and generate predictive confidence scores with **~92%** accuracy.