

# Darsh Patel

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## EDUCATION

### ***B.S in Computer Science, Track: AI & Machine Learning***

Expected: May 2026

University of Maryland - Baltimore County

#### ***Related Coursework:***

Software Engineering I, Operating Systems, Data Structures, Artificial Intelligence, Computer Architecture, Computer Organization, Statistics

#### ***Extracurriculars/Honors:***

-Appointed as incoming GDG Lead for Fall 2025 and Spring 2026, fostering collaboration among over 100+ members to promote skill development and knowledge sharing within UMBC's tech community.

-Attained President's List distinction for Spring 2025, demonstrating academic dedication in achieving a gpa of 4.0

## SKILLS

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

**Frameworks/Libraries:** React, Next.js, Node.js, Tailwind, Supabase, NumPy, OpenCV, TensorFlow, Plotly, Flask, React-Native

**Tools:** PostgreSQL, Microsoft SQL Server, AWS, Git, Jira, Confluence

**Certifications:** [AWS Certified Cloud Practitioner](#), [Cisco Cybersecurity Essentials](#)

## EXPERIENCE

### ***Software Engineer Intern – bwtech@UMBC***

December 2024 - Present

- Collaborating with Chris White under Nexsys DBA to build AI solutions that automate workflows & optimize business processes.
- Utilizing AWS Cloud to establish secure user groups and admin roles for multiple team members while building scalable infrastructure to host Product and Service landing zones for Nexsys DBA.
- Developing a cloud-based, AI-driven web application for BISYN LLC using AWS ECS, Lambda, RDS, and S3 to automate Raman spectroscopy data processing, classification, and spectral binning for remote sensing.

*React • Tailwind • AWS ECS • AWS Lambda • AWS RDS • AWS S3 • GitHub • Python • JavaScript • Confluence • Jira*

### ***Technical Team Lead – hackUMBC***

March 2024 - Present

- Aided fellow organizers in hosting a 24-hour collegiate hackathon with over 440 participants by managing technical team to develop and update hackathon website and app, that both participants and organizers used throughout the event.
- Spearheaded a technical team of 6 to migrate hackUMBC.tech to Next.js, reworking the front-end with React, JavaScript, and Tailwind while configuring an AWS backend to improve data management and support secure, scalable operations.
- Streamlined participant data collection by integrating a registration form using AWS tools, which ensured scalability and reliable service for 440+ contestants.

*React • Next.js • Python • JavaScript • Tailwind • AWS • Lambda • DynamoDB • S3 • GitHub • Google Apps Scripts • Project Management*

### ***Undergraduate Researcher – UMBC DAMS Research Group***

September 2024 – December 2024

- Composed over 20+ Python scripts for advanced prompt engineering, analyzing and summarizing thousands of privacy policies to evaluate the processing capabilities of large language models within the GenAIPABench project.
- Designed and deployed a React-based website with a Firebase backend to store, categorize, and enable efficient search functionality for over 1000+ privacy policies, creating an interactive platform for presenting project findings.

*React • Next.js • JavaScript • Python • Firebase*

## PROJECTS

### ***hackUMBC Website***

August 2024 - Present

- Architected a responsive front-end for [hackUMBC.tech](#) using React, Next.js, CSS, and Tailwind, to ensure a seamless experience across devices, resulted in positive feedback from 90% of users for its intuitive design and smooth transitions.
- Constructed a robust AWS backend for participant registration using DynamoDB and S3, securely storing user information and providing reliable access to resumes and registration details from over 790 participants.

### ***CMSC 447 Retriever Essentials Inventory Manager***

February 2025 - May 2025

- Developed a full-stack inventory & checkout system using JavaScript, Next.js, Express, and Supabase; improved item lookup and checkout speed by 90% with barcode/QR workflows and optimized queries.
- Implemented Clerk auth with GitHub login and Docker dev setup; managed team workflow via Jira and GitHub for seamless CI/CD and contributor onboarding.

### ***American Sign Language Image Recognition Program***

July 2023 - August 2023

- Engineered an AI and ML-powered American Sign Language (ASL) recognition system, trained using python, enhancing accuracy by 90%.
- Leveraged machine learning algorithms and key libraries, including OpenCV and TensorFlow, to optimize image processing and hand signal detection by 50%.
- Implemented an [HTML/CSS landing page](#) to create a user-friendly interface, which boosted user retention and engagement by 20%.