Darsh Patel

Baltimore, MD | dpatel37@umbc.edu |Personal Site |LinkedIn| Github

EDUCATION

B.S in Computer Science Expected: May 2026

University of Maryland - Baltimore County

Related Coursework:

Object Oriented Programming, Data Structures, Artificial Intelligence, Computer Organization, Principles of Programming, 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 Dean's List distinction for Spring and Fall 2024 semester, demonstrating academic dedication in achieving a gpa above 3.5.

SKILLS

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

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

Tools: mySQL, MongoDB, Microsoft SQL Server, AWS, Git

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

Lead Software Engineer – *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 - September 2024

- 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.

Full-Stack Note Taking Tool August 2024 - September 2024

- Developed a full-stack note-taking tool leveraging TypeScript and Next.js, optimizing data retrieval speeds by 40% through efficient database queries.
- Configured server-side authentication via Clerk and Convex with GitHub integration, allowing seamless login for 200+ users, elevating user experience and security across platforms.

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%.