Danyal Ahmed

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Software Engineer

Eager Junior Software Engineer with hands-on development experience, ready to excel in a role that combines technical challenges with opportunities for career progression. Adept at software development from conception to implementation, I aim to leverage my skills in full-stack development within a supportive culture focused on innovation and growth.

Education and Certifications

University of Maryland ♦ College Park, MD

Bachelor of Economics | Minor: Astrophysics | College Park Scholar (Life Sciences), Eagle Scout

Additional Coursework: The Odin Project, Harvard CS50Al

Professional Certifications: AWS Cloud Practitioner, Google IT Certificate

Technical Skills

- **Programming Languages:** Proficient in Python (including Pandas and Matplotlib), React.js, TypeScript, JavaScript (ES6), HTML/CSS including Tailwind CSS, Java
- Tools & Technologies: Familiar with Docker, RESTful APIs, Threejs with WebGL, Cloud Environments, Git Version Control Flows, GitHub, and Bash as well as CLI tools and behaviors; basic understanding of middleware systems
- Database Knowledge: Proficient with SQL including PostgreSQL, basic understanding of NoSQL databases
- Other: Experience with Arduino and circuit design including basic C for integrated systems, Blender for 3D design, Knowledgeable in Agile methodology, Experience using WordPress for client-centered design

Relevant Experience & Projects

danyalahmed.dev

- Personal website developed using Typescript in React with Next.js, hosted on Vercel, utilizing server-side rendering and static caching to optimize performance
- Designed and implemented custom UI using handpicked palette, ThreeJS, Framer Motion, and TailwindCSS, with emphasis on accessibility standards, load time, and Lighthouse scores

YouTube Clone - Deployed on Google Cloud and Firebase

- Video streaming clone developed using ffmpeg processing via Node.js in Google Cloud Run using Pub/Sub and Cloud Storage
- Designed and implemented microservice architecture for secure data validation and transfer among Google Cloud Services
- Frontend developed in React and NextJs, with REST APIs via Firebase Functions, including user authentication with Google sign-in, video upload, metadata transferal, and communication via Pub/Sub to reduce instance load

Al Tic Tac Toe Algorithm - Deployed on Google Cloud

- Wrote and tested a tic-tac-toe game that includes game modes and interfaces with a custom-written API for an AI opponent that utilizes adversarial search
- Implemented RESTful API in Python via FastAPI endpoints deployed on Google Cloud Run, built using Docker containers, to interface with front end for AI opponent's game moves
- Provided API security measures in the form of Google Cloud rate limiting and API keys required for request headers

Professional Experience

2018 – Present ♦ Magoo's Pub & Eatery (Manager/Bartender)

- Works in a fast-paced environment managing teams of up to 6 employees serving 200+ clients per day
- Designed training processes and onboarding for 20+ new employees
- Completes extensive cash-handling and vendor communication, leading to increased responsibility as keyholder and daily lead management of the restaurant