

Danyal Ahmed

danyalsmail@gmail.com | github.com/theonlynanu | US Citizen

Education and Certifications

Northeastern University ♦ Boston, MA

Expected Dec 2026

Master of Computer Science | GPA: 3.78

Selected Coursework: Foundations of AI, Object-Oriented Design, Database Management, Computer Systems/Operating Systems

University of Maryland ♦ College Park, MD

2019–2022

Bachelor of Economics | *Minor: Astronomy* | College Park Scholar (Life Sciences)

Professional Certifications: Google IT Certificate, AWS Cloud Practitioner

Experience

Graduate Teaching Assistant, Data Structures & Algorithms – Northeastern University

Aug 2025–Present

- Lead 7-student section with 1-on-1 coaching in C programming, algorithmic analysis, and systems
- Guide debugging and optimization strategies for assignments and assist in runtime performance analysis
- Design and review focused materials on memory management, Git workflows, and asymptotic reasoning
- Provide individualized feedback on student work covering algorithmic design (divide-and-conquer, dynamic programming, graph algorithms) and systems integration

Projects

AI Pac-Man with Q-Learning

github.com/theonlynanu/QPacman

- Built reproducible training pipeline (configs, seeds, metrics export) for tabular Q-learning, running 200k+ episode sweeps with automated tracking of variance, state exploration, and performance
- Produced performance visualization + **research paper** informing the need for deep-RL extensions (CNNs/DQNs) in complex state/action spaces

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- Achieved a **99/100 Lighthouse performance score** for full-stack personal site using React + Next.js (TypeScript) and Vercel SSR caching
- Deployed adversarial AI microservice (FastAPI + Docker on Google Cloud Run) handling **50rps at <50ms latency p95** (excluding cold starts)

Skills

- **Programming Languages**: Python (Pandas, NumPy, PyTorch), Java, C, TypeScript, JavaScript (ES6), SQL
- **Frameworks**: React 18+, Next.js, FastAPI, scikit-learn, Gymnasium
- **Tools & Technologies**: Git, Docker, Maven, Google Cloud Run, AWS

Leadership & Community

Align Club Founding Member, Northeastern University (2024 – Present) – Currently working to organize hackathons and peer mentoring for graduate peers in Align Program and leading development of club website

Eagle Scout - Troop 1812 (National Capital Area Council)

Volunteer, Frederick Memorial Hospital – 200+ hours patient transport and admin assistance