

Hussain Raza

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EDUCATION

University of Virginia, Charlottesville, VA
Bachelor of Science in Computer Science
Expected Graduation: May 2028

Relevant Coursework: Data Structures & Algorithms I & II, Computer Systems & Organization I & II, Mobile Application Development, Software Engineering, Cybersecurity, Discrete Mathematics, Data Science

RELEVANT EXPERIENCE

Amazon Web Services (AWS), Arlington, VA
Software Development Engineer Intern, May 2025 - August 2025

- Made failures visible for 3 agent and GPU monitoring components by emitting health events and status conditions through the Kubernetes API
- Enabled Kubernetes to automatically detect and restart failing pods across 4 CloudWatch Agent Operator components by implementing liveness and readiness probes in Go
- Merged 3 pull requests (about 700 lines of Go, including unit tests) into 2 public AWS open-source repositories after code review by the CloudWatch Agent team
- Used Kiro, AWS's AI coding IDE, to map an unfamiliar Go codebase and draft changes, then reviewed and tested all AI-generated code before code review

MIT Introduction to Technology, Engineering, and Science, Virtual
Student, June 2023 - January 2024

- Selected as 1 of ~230 students from ~2,700 applicants for MIT's 6-month STEM program
- Used ArcGIS Online to analyze relationships between socioeconomic factors and healthcare access
- Collaborated on geographic visualizations and presented findings at a research symposium

PROJECTS

UVA CIO Management Platform | Spring 2026

- Delivered direct messaging with file attachments and per-team group chat for a 5-person Agile team by building the data models, views, and UI
- Triaged findings from beta testing with 11 external users across 3 roles into tracked GitHub issues as QA lead
- Fixed 2 tester-reported bugs and a Google sign-in bug that overwrote profiles; added profile pictures app-wide

Missile Booster Optimization Simulator | Spring 2025

- Achieved under 2% simulation error across 24 validated test cases by building a Python simulator for the U.S. Navy comparing delta-V and range for 3-stage vs. pop-out booster designs
- Let users compare designs without code by adding a Tkinter GUI with matplotlib charts and CSV export

College Tuition Analysis App | Spring 2026

- Built two-sample t-tests and confidence intervals with an adjustable significance level to compare public and private tuition across about 7,800 U.S. colleges from College Scorecard data

TECHNICAL SKILLS

Languages: Go, Python, Java, C, R

Tools & Concepts: Django, Git, Linux, Docker, Kubernetes, Pandas, NumPy, ArcGIS, Cloud Observability, AWS

AI Tools: Claude Code, Codex, Kiro, AWS Bedrock