Aniket Chaudhry

EDUCATION

Northeastern University **Boston, MA**
Khoury College of Computer Science September 2023 - Present
Candidate for Bachelor of Science in Computer Science, Concentration: AI GPA: 3.9/4.0
Honors: CyberCorps Scholarship For Service, Khoury College Dean's List, Google Play Change The Game Winner
Relevant Coursework: Foundations of Artificial Intelligence* | Object Oriented Design | Computer Systems | Database Design | Foundations of Cybersecurity | Discrete Structures | Foundations of Computer Science I & II

COMPUTER KNOWLEDGE

Languages/Frameworks: Java, Python, SQL, Go, Rust, HTML/CSS, JavaScript, React
Tools/Methods: Git/Github, GitLab, Jira/Confluence, Microsoft Office, AGILE/Scrum, Linux, Figma

LEADERSHIP & WORK EXPERIENCE

General Dynamics Electric Boat, Groton, CT - Tactical Software Engineering Co-Op January 2025 — Present
- Created a YAML-configurable tracing service in Go, driven by gRPC protos that links 100% of OTEL-standard spans across a declared pipeline via per-hop FIFO queuing and HTTP exporting.
- Added client-side proto-based batching for the tracing service, slashing gRPC traffic by 90% while delivering complete parent-child chains in Jaeger UI for real-time latency insights.
- Implemented exhaustive test suite, achieving 100% coverage for critical Rust fault detection modules, testing all conditional paths and redundancy logic.
- Adhered to system requirements, mission design documents (MDDs), and operational protocols while working within a security-controlled environment.

Satellite Development Club, Northeastern University - Project Lead & Software Engineer August 2023 – Present
- Developed project website displaying the team's accomplishments and projects using Next.js, React.js, & Tailwind CSS; achieved a 40% increase in monthly visitors.
- Collaborated on satellite payload development using C for the PLEIADES-ATLAS satellite, developing image processing software implementing a nearest neighbors interpolation algorithm to reduce file sizes by 20%.
- Built presentation materials and delivered quarterly updates to NASA and the Air Force Research Laboratory.
- Managed a team of 20+ students in developing 2 separate satellites to be deployed within 3 years.

Sprouts.ai, San Francisco, CA - Full-Stack Software Engineer Intern July 2024 – September 2024
- Collaborated on developing a content management solution using Strapi and JavaScript to optimize the webpage-building process for company executives.
- Utilized Next.js API routes to handle user authentication on the company website.
- Implemented a PostgreSQL database schema solution to handle an additional 5,000 daily queries.

Space Dynamics Laboratory, Albuquerque, NM - Mission Concept Intern May 2024 – July 2024
- Assembled a comprehensive mission design document (MDD) and requirements verification matrix (RVM) to advance Northeastern University's planned sub-Terahertz satellite communication experiment.
- Operated and sent commands to AFRL's XVI satellite under a subject-matter expert (SME) to help facilitate mission objectives.

Code Ninjas, San Ramon, CA - Software Development Tutor May 2022 – December 2022
- Instructed 100+ students aged 7-14 in game development w/ Java, Lua, & Unity.
- Led 3 summer camps guiding groups of 7-8 students through hands-on HTML/CSS/JavaScript activities.

PROJECTS

Swarm Intelligence for Optimal Satellite Placement September 2024 - December 2024
- Developed a satellite constellation placement model using swarm intelligence algorithms (Particle Swarm Optimization, Ant Colony Optimization) to optimize coverage and inter-object distance within example satellite constellations, including SpaceX Starlink's satellite network.
- Utilized publicly available Two-Line Element (TLE) data to model and distribute 60 satellites in dynamic, adversarial environments.

* = Indicates graduate-level coursework