Hadi Malik

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EDUCATION

Georgia Institute of Technology — Atlanta, GA
B.S. Computer Science, Specialization in Cybersecurity and Intelligence | GPA: 4.0 — *Expected: Dec. 2027*
- Relevant Coursework: Data Structures, Object-Oriented Programming, Machine Learning, Computer Networking, Information Security, System Design, Linear Algebra, Discrete Math, Probability & Statistics

EXPERIENCE

Research Assistant — Aug. 2025 – Present
Georgia Tech School of Cybersecurity and Privacy — *Atlanta, GA*
- Researching to determine if large language models update their knowledge from queries during inference, resulting in user data is being leaked.

Software Engineer Intern — May 2025 – Jul. 2025
In Good Company Works — *Atlanta, GA*
- Developed a full-stack AI Advisor chatbot using React, Node.js, and Firebase, with **50+ chat sessions from 15 test users** to validate usability.
- Delivered tailored AI responses by implementing business-specific Retrieval-Augmented Generation (RAG), enhancing contextual accuracy.
- **Reduced backend latency by 50+%** by migrating infrastructure to Google Cloud; secured with RBAC, token validation, CORS, and session controls.
- Launched an iOS companion app using SwiftUI and MVVM, achieving seamless integration with Firebase to extend functionality.
- Improved experience and brand consistency by collaborating with designers to rebrand the tool and redesign the website and app using Figma.

Software Developer Intern — May 2024 – Aug. 2024
Verifacto Inc. — *Sandy Springs, GA*
- **Optimized an ML model's accuracy to 99%** by training the model on thousands of insurance documents using reinforcement learning.
- Developed a LangChain-powered AI chatbot that allows users to query their databases with natural language for actionable insights.
- **Improved database query efficiency by 40%** by migrating the existing MySQL database to a vectorized MongoDB database.
- **Boosted engagement from Spanish-speaking users by 15%** by localizing all customer-facing content into Spanish to improve accessibility.

Data Science Research Assistant — Jan. 2024 – Present
Georgia Tech VIP - ACT Driving Simulator — *Atlanta, GA*
- Analyzed EEG data in MATLAB/EEGLAB to study brain activity during a simulated cyber-attack in an autonomous driving scenario.
- Implemented Welch's method to calculate power spectral density and extracted alpha, beta, and gamma bandpower features to measure stress.
- Combined bandpower across electrodes, used z-scoring for normalization, and cleaned the data to create stable time series of cognitive states.
- **Detected stress with 95% accuracy** by applying CUSUM novelty detection on the band time series to identify shift in brain states.

iOS Developer — Sept. 2024 – Dec. 2024
GT iOS Club – SmartyPants — *Atlanta, GA*
- Developed an iOS app that groups students by academic preferences and availability. **Won "Best Design" at club showcase.**
- Built the Profile page in SwiftUI with editable user fields, dynamic course management, and photo selection using `UIImagePickerController`.
- Integrated Firebase Firestore database for real-time syncing of user preferences like major, languages, meeting format, and group size.

PROJECTS

VulnScan - A Cybersecurity tool that scans for network vulnerabilities — June 2025 - Present
- Built multi-threaded Python vulnerability scanner for open port detection, banner grabbing, and CVE mapping via NVD CPE API.
- Implemented CPE-based CVE matching with CVSS filtering, CLI support, and interactive subnet host discovery for vulnerability assessment.
- Generated HTML/JSON reports and tested scanner accuracy against Dockerized vulnerable services (vsFTPd, OpenSSH, MailHog, Apache).

LEADERSHIP AND COMMUNITY ENGAGEMENT

Sunday School Manager, Masjid Omar Bin Abdul Aziz — Aug. 2022 – Present
- Improved Sunday School operations by managing curriculum and organizing events that increased student engagement and program structure.
- Taught Islamic studies using interactive methods like games, group discussions, projects, and hands-on activities.

SKILLS

- **Languages**: Java, Python, Swift, C, SQL, Assembly (x86), PHP, JavaScript, TypeScript, R
- **Frameworks**: React, Django, Flask, Firebase, MongoDB, Langchain, MySQL, WordPress, Webflow
- **Developer Tools**: Matlab, MySQL, Git, AWS, Google Cloud, Salesforce, Hubspot
- **Operating Systems**: Linux (Ubuntu), macOS, Microsoft Windows

ADDITIONAL INTERESTS

- **Interests**: Fantasy Football, Basketball, Soccer, Cars, Astronomy, Food
- **Clubs**: iOS Club, Muslim Student Association (Activities Committee Leader), Pakistani Student Association