# 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. 2026

· Relevant Coursework: Data Structures, Object-Oriented Programming, System Design, Linear Algebra, Discrete Math, Probability & Statistics

#### EXPERIENCE

Software Engineer Intern

May 2025 - Jul. 2025

Atlanta, GA

- In Good Company Works 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

- Increased AI model accuracy from 76% to over 99% (based on validation set performance) by collecting and annotating thousands of insurance documents for reinforcement learning, enabling the LiLT model to automatically extract key fields from insurance notices.
- · Improved database query efficiency by 40% and reduced token usage by 30% by converting a MySQL database into a vectorized MongoDB structure with a more compact schema that maintained full data representation while lowering input size for LLM-driven queries.
- · Boosted customer satisfaction by 25% (measured through post-demo survey feedback) by developing and showcasing a LangChain-powered chatbot that allowed users to query their own inventory databases for actionable insights - functionality that was previously unavailable.
- · Led a platform translation initiative that increased engagement from Spanish-speaking users by 15% (based on web traffic analytics) by localizing all customer-facing content into Spanish, ensuring broader accessibility without sacrificing performance.

#### **Data Science Research Assistant**

Jan. 2024 - Present

Atlanta, GA

Georgia Tech VIP - ACT Driving Simulator

- · Visualized EEG data with MATLAB and EEGLAB to understand brain activity during simulated cyber attacks in a driving environment.
- Developed scripts to extract and standardize alpha, beta, and gamma frequency bands to monitor stress-related brain responses in real time.
- Applied CUSUM-based novelty detection to cleaned and preprocessed EEG signals to detect shifts in cognitive state.

## iOS Developer

Sept. 2024 - Dec. 2024

Atlanta, GA

GT iOS Club - SmartyPants

- 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.
- Implemented custom SwiftUI components for form input, group listings, and responsive layouts tied to onboarding and matching logic.

#### **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, Vite, Firebase, MongoDB, Langchain, MySQL, WordPress, Webflow, Yii, Overleaf
- 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