

Mohammad Rafay

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EDUCATION

Texas A&M University

Bachelor of Science in Computer Engineering

College Station, TX

December 2025

CERTIFICATIONS

CompTIA IT Fundamentals+

May 2021

Texas Property and Casualty Insurance License

September 2021

EXPERIENCE

Software Developer

Norstella

January 2026 – Present

Richmonad, Texas

- Designed and implemented scalable backend services using Java and Spring Boot, developing RESTful APIs to support secure, high-volume healthcare data ingestion and processing.
- Built and optimized data access layers using SQL, improving query performance, transaction reliability, and data consistency across distributed systems.
- Collaborated in an Agile environment to integrate Spring Boot microservices with cloud infrastructure, implementing logging, exception handling, and unit testing to enhance system reliability and maintainability.

Software Quality Automation Engineering Intern

Apple Inc.

January 2025 – June 2025

Cupertino, California

- Designed and implemented automated test scripts in Python and Swift for full-stack applications to validate UI workflows, APIs, and database interactions, improving test efficiency and release stability in a software's development lifecycle.
- Triaged and debugged software issues across frontend and server-side applications, improving system performance, resolving critical bugs, and ensuring stable software releases.
- Built and optimized test frameworks to streamline automation pipelines, integrate results into CI/CD reporting cycles, and collaborated cross-functionally in an Agile environment to define test requirements, execute automated/manual test cases, and deliver actionable reports.
- Performed functional, regression, and performance testing to validate release quality and responsive UI design experience to ensure seamless software integration.

Software Engineering Intern

Y-12 National Security Complex

May 2024 – January 2025

Oak Ridge, Tennessee

- Built an interactive route planning simulation using Cesium, Unity, and C#, allowing users to dynamically create the most efficient routes for transporting nuclear materials while ensuring maximum security.
- Implemented cybersecurity policies to strengthen the software for the company's alarm response training, enhancing the facility's protection against imminent threats by 40%.
- Accelerated training throughout the organization by 20% developing modules to counteract cyber threats in resource transportation.

Cybersecurity Engineering Intern

Texas Department of Transportation

May 2023 – August 2023

Austin, Texas

- Maintained Security Policy content for compliance and accuracy throughout the organization.
- Conducted Third Party Risk Management assessments for enhanced protection of management systems.
- Utilized KQL within Microsoft Azure, to analyze research metrics, supporting data-driven decision-making and strategy formulation.

PROJECTS

BluStick | TypeScript, JavaScript, Swift, C++, SQL

August 2025 - Present

- Developed a hardware-software system that collects Bluetooth signals from distributed sensors, performs real-time triangulation, and visualizes device locations on an interactive and responsive cross-platform user interface.

LED Matrix Camera Display | Python

January 2024 - May 2024

- Built an interactive LED matrix system that streams live webcam input and button-triggered patterns, validating UI responsiveness and ensuring seamless interaction between input devices and visual output.

Point-of-Sale System | TypeScript, JavaScript, Java, HTML, React

January 2024 – May 2024

- Designed and implemented a Point-Of-Sale system for a restaurant that allows for an interface for employees, managers, and cashier pages to communicate together.

Dynamic Image Resizer | C++

November 2022

- Implemented an efficient algorithm in C++ for dynamic image resizing, preserving content integrity, and optimizing storage use.

Web Development | HTML, CSS, JavaScript

August 2020 - Present

- Delivered bespoke website solutions for small businesses, enhancing online presence and customer engagement.

SKILLS

Languages/Tools: Python, C++, C#, Java, Swift, TypeScript, SQL, HTML, CSS, JavaScript, PostgreSQL, Haskell

Technologies: SpringBoot, Xcode, Microsoft 365, Unity, Visual Studio Code, IntelliJ, JIRA, Radar, Application Programming Interfaces

Soft Skills: Project Management, Team Leadership, Problem Solving, Analytical Thinking, Scrum Master, Software Development Lifecycle, Test Automation, UI/UX Design

LEADERSHIP POSITIONS

President | Honors Society for Electrical & Computer Engineers (HKN)

June 2023 – January 2025

Corporate Chair | Honors Society for Electrical & Computer Engineers (HKN)

January 2023 – June 2023