

# Amir Mairaj

Active Secret Security Clearance

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## Professional Experience

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### Peraton

August 2024 – Present

Associate Software Engineer, Santa Clara, CA

- Engineered mission-critical software features for **Tomahawk Missile Mission Planning Systems**, leveraging **C++/C#** to deliver versatile land attack and maritime missile controls.
- Optimized and debugged large legacy code-base
- Modernizing legacy systems by transitioning to a containerized microservices architecture, utilizing the **.NET framework**, **RabbitMQ**, **OpenAPI**, **PostgreSQL**, and **Swagger** to enhance scalability and maintainability.
- Conducted **code reviews** weekly and participated in daily **standups** to ensure code quality and maintain alignment with team goals.
- Delivered over **90% of planned features** within sprint timelines, contributing to sprint planning, reviews, and retrospectives in a **SAFe Agile** environment.

### NAVAIR (Weapons Division)

March 2024 - August 2024

Computer Scientist, Ridgecrest, CA

- Developed **full-stack web applications** used by **Boeing F/A-18** and **EA-18G** flight crew.
- Translated design team mockups into functional and responsive user interfaces using **TypeScript/Vue.js**, **HTML5**, and **CSS**, ensuring pixel-perfect implementation and a seamless user experience and workflow.
- Developed **C# APIs** to retrieve and process data from **Microsoft SQL Server**, delivering structured responses to the frontend for seamless data visualization and user interaction.
- Optimized **Microsoft SQL Server** database queries using stored procedures, reducing execution times by **10-30%** and ensuring reliable daily processing of 100+ transactions.

### UC Irvine Office of Information Technology

January 2022 - December 2023

Help Desk Consultant, Irvine, CA

- Resolved 75% of complex technical issues without escalation, managing user requests effectively.

### Odyssey

February 2023 – May 2023

Backend Software Engineer Intern, Irvine, CA

- Developed and maintained backend services for an AI-powered trip planning web application, leveraging **AWS Amplify**, **AWS Lambda**, and **AWS DynamoDB** to ensure scalability and reliability.
- Integrated backend functionality with a **React** frontend to create a user dashboard.
- Collaborated closely with project managers to deliver features on schedule and ensure alignment with business requirements and user needs.

## Education

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### University of California, Irvine

August 2019 - December 2023

B.S. in Computer Science — GPA: 3.7 – Dean's Honor List

## Technical Skills

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**Certifications:** ScaledAgile - SAFe 6 Agilist Certification (2024)

**Languages:** C/C++, C#, Python, Java, TypeScript/JavaScript (Vue.js), HTML, CSS, SQL/TSQL

**Cloud & Frameworks:** AWS (DynamoDB, Lambda, Amplify, EC2, API Gateway)

**Tools:** Git, GitHub, Bash, SQL Server Management Studio, Visual Studio, Eclipse, CLion, PyCharm, IntelliJ IDEA

## Technical Projects

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### Command Line Shell

Implemented a command-line shell in **C** with job control and signal handling.

### Memory Simulator

Built a virtual memory system simulation with **FIFO** and **LRU** page replacement algorithms in **C**.

### Web Scraper and Search Engine

Created a **Python**-based web scraper with GUI, implementing **TF-IDF** scoring and **SimHash** for optimized search results.