

# Patrick Carroll

## Junior Model and Simulation Engineer

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### Security Clearance

Active Top-Secret SCI 2014 - Present

### Education

B.S. in Computer Science (GPA 3.65) Texas A&M-Corpus Christi 04/2019 - 12/2023

### Summary

10+ years of experience spanning software development, RF signal analysis, and automation within defense environments. Proven track record building CI/CD pipelines, integrating simulation models, and deploying scalable solutions across government programs.

### Experience

**Junior Model and Simulation Engineer** Radiance Technologies, Beavercreek, Ohio 08/2024 - Present

- Developed and maintained CI/CD pipelines to build, test, and validate Simulink models into AFSIM plugins.
- Package models and plugins to deploy across multiple government programs and agencies.
- Partner with cross-functional engineering teams and government customers to integrate new models and features.

**Information Systems Technician** United States Navy Reserve, Cincinnati, Ohio 04/2019 - 04/2025

- Supported the Navy part-time. Trained in Cisco Routers, Switches, End Devices, IPv4 and IPv6 addressing, network protocols, and troubleshooting. Qualified in Enlisted Information Warfare.

**System Software Support Engineer** MBS Professional, Mason, Ohio 01/2024 - 08/2024

- Developed Windows Preinstall scripts for Image Capture/Deployment.
- Developed VBA MS PowerPoint add-in for AI-driven Text-To-Speech short video presentations.
- Developed VBA macros in MS Word for SQL database interactions.

**IT Systems Administration Assistant** Texas A&M Corpus Christi, Corpus Christi, Texas 08/2019 - 12/2021

- Handled 700+ tickets dealing with the administration of User Accounts, E-mail, Listserv, Security Groups, Distribution Groups, Shared Mailboxes, File Systems, HPC and Active Directory.

**Submarine Electronics Technician** United States Navy, Norfolk, Virginia 04/2014 - 04/2019

- Analyzed and classified different types of RF signals.
- Led teams of 2-3 in the maintenance and repair of critical systems.
- Supported joint operations at sea.

### Projects







**Stock Bot**, Automated day-trading engine that scans for volatile stocks, analyzes news using GPT-4o, and executes trades via the Interactive Brokers API. Built with Python, and hosted on AWS.

**Document AI Organization & Scanner**, Document classification, renaming, meta-tagging, and organization using AI. Utilized Microsoft Azure AI Intelligence, OpenAI, Python, Java, and JavaScript.

**Battlezone**, Recreation of the 1980s tank simulator in C/C++ OpenGL, with iconic Green Vector 3D graphics, particle effects and collision detection.

**Comparing LLM Context Similarity**, Tested the similarities and accuracy of different OpenAI models with Jupyter Notebooks.

### Skills

**Programming Languages:**  C/C++,  Python,  MATLAB,  HTML,  CSS,  JavaScript

**Tools and Frameworks:** TortoiseSVN, Git, Jira, Confluence, Jenkins, Groovy

### Certifications

CompTIA Security+ 06/2022 - Present

Microsoft Certified: Azure AI Fundamentals 07/2023 - Present