

Brian Rahmoune

| <https://www.brianrahmoune.com> |

EDUCATION

University of Texas at Dallas
Bachelor of Science in Computer Science

May 2022
Richardson, TX

WORK EXPERIENCE

Riverside Research

February 2025 – Present

Offensive Security Researcher

Lexington, MA

- Developed Android applications using Kotlin and C.

Lockheed Martin

May 2022 – January 2025

DevSecOps Engineer 1 & 2

Fort Worth, TX

- Engineered robust and memory-safe C++ code for a sophisticated multi-process application.
- Merged multiple team products into a functional simulation on Linux for U.S. Air Force pilot training.
- Increased successful builds deployed for further testing to pilots and other internal teams by ~35%.
- Optimized node performance by resolving CPU overruns, enhancing system efficiency and reliability.
- Worked with Atlassian products for source version control and other DevSecOps related work.
- Experienced in low-level embedded systems, specializing in real-time operating system implementation.
- Proficient in debugging C/C++ code using GDB, identifying and resolving complex runtime issues with the F35.
- Integrated Varjo VR headset into a F35 simulation that places you in the cockpit of the F35 fighter jet.
- Spearheaded code reviews, ensuring adherence to organizational coding standards and best practices.
- Worked in a distributed computing environment to optimize for both multi-GPU and multi-node systems.
- Served as primary contact for multiple software products, delegating integration tasks for F35 fighter simulation to specialized team members.
- Developed multiple internal Python Tkinter GUI applications and Linux command-line tools.
- Overhauled my team's Jenkins pipeline to GitLab CI/CD, ensuring seamless transition with zero discrepancies.
- Conducted hardware-in-the-loop debugging, resolving both compile and runtime issues in simulated real-world environments.

Collins Aerospace

June 2021 – December 2021

Software Engineer Intern/Co-op

Richardson, TX

- Leveraged VC++ to update simulators used for radio communications between military bases & ground stations.
- Utilized network programming in Python to work on server-side TCP connections for simulators.
- Configured routers and switches for installation at different global sites for High Frequency Global Communication Systems.
- Maintained a Python GUI project that displayed information regarding radio frequencies.
- Developed JavaScript frontend to visualize and present test results, improving data accessibility and analysis.

PROJECTS

RAG Chatbot

- Developed a chatbot using the Llama2-13B parameter model that combines vast deep learning knowledge with the ability to provide context-aware, up-to-date responses. I collected, cleaned and preprocessed my own data in order to generate accurate embeddings.

SKILLS

- **Programming Languages:** C/C++, Python, JavaScript, Typescript, Bash, PowerShell, YAML, XML, SQL
- **Machine Learning & AI:** GPT-3.5-turbo, GPT-4, Llama3(7B-70B), Mistral 7B, BERT, T5, Transformer Neural Network, Convolutional Neural Network (CNN), CUDA, HPC
- **Frameworks & Libraries:** OpenAI, Huggingface, PyTorch, RestAPI, Scikit-Learn, React
- **Specializations:** Vector Databases, MongoDB, Git, Linux, GDB, GitLab & Jenkins Pipeline, Docker