

Malay Agarwal

Arlington, VA | TS/SCI

Software engineer finding enjoyment with full stack, embedded programming, and creating tools that matter.

Work Experience

Senior Software Engineer | **Booz Allen Hamilton** | June 2023 – Present

Software Engineer | June 2023 – May 2024

- Innovated on cutting-edge Air Force modeling and simulation tools to be easily accessed as a no-code/low-code environment using React, TypeScript, Python, and Go.
- Led the development efforts across the full stack, including conducting code reviews, mentoring developers, and creating design documents to guide long-term strategy and execution.
- Architected and created data analysis micro-service using a CQRS design pattern leading to effective and personalized dashboard modules.
- Helped implement a rework for the frontend leading to an easier development experience and maintainability.

Army Cyber Officer | **91st Cyber Brigade** | May 2023 – Present

- Specialize in operational planning, mission execution, and ensuring mission readiness for offensive cyber operations in a classified environment.
- Assisted with Battalion-level operations and training, presenting regularly to higher leadership in the S3 shop.

Research Intern | **NASA** | July 2022 – August 2022

- Collaborated on a pivotal project involving UAV operations in the Aleutian Islands, providing critical support to NOAA for marine life monitoring through aerial imaging and scanning.
- Developed system to monitor historic ship data in area of operations and signify trends to aid UAS/UAV missions.
- Addressed and resolved icing challenges during flight, demonstrating problem-solving acumen and technical expertise in adverse conditions.

Additional Projects

Algorithmic Trading Systems | March 2020 – August 2022

- Live traded autonomously on stock and crypto markets using Python, Go, and Docker.
- Optimized buy/sell signals based on mathematical indicators and strategies
- Efficiently processed large data and backtested for accurate results
- Maintained secure and clean code practices for collaboration

Smart Foam Roller | September 2018 – June 2019

- Implemented microcontroller with variety of sensors and electrical engineering concepts
- Effectively collected and communicated marketing data
- Pitched to investors leading to funding to build prototypes

Education

Penn State University | July 2019 – May 2023

B.S. in Computer Science and commissioned as a 2LT in the Army

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github.com/MalayCreates

malayagarwal.me

Skills

Programming Languages

Python, Go, C, TypeScript, JavaScript, React, SQL, Rust

Tools

Docker, Git, Linux, Digital Ocean

Interests

Powerlifting, running, skiing, video games

Current Learning

Learning how to use Rust as a systems programming language by creating containers and a shell from scratch