

# Malay Agarwal

Arlington, VA | TS/SCI with Polygraph Pending

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

## Work Experience

Full Stack Engineer | **Booz Allen Hamilton** | June 2023 – Present

- 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.
- Architected and created data analysis micro-service using a CQRS design pattern leading to effective and personalized dashboard modules.
- Spearheaded development for frontend with backend integration and presentation design documentation for the front end.
- Helped implement a rework for the frontend leading to an easier development experience and maintainability.

Army Cyber Officer | **91<sup>st</sup> Cyber Brigade** | May 2023 – Present

- Currently serving as an Assistant S3 Officer, demonstrating proficiency in planning operations and training for the unit.
- Pending transition to a Team Leader role overseeing a Defensive Cyber Operations team, showcasing leadership and strategic thinking in cyber defense.

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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## 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