Malay Agarwal

Arlington, VA │ TS/SCI with Polygraph

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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 Enigneer │ June 2023 – May 2023

- 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 │ *91st Cyber Brigade* │ May 2023 – Present

- Specialize in operational planning, mission execution, and ensuring mission readiness for offensive cyber operations in a classified enviornment.
- 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

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