

ANDREW CHANEY

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SUMMARY

- Junior working towards a Bachelor's in Computer Science with a focus on low-level systems and security.
- Experience with Python, Java, JavaScript/TypeScript, Node.js (Express), Svelte, SQL, and C++.
- Knowledge working with servers, applications, databases, and APIs.
- Experience using Docker and Virtual Machines.
- Familiar with Agile.
- Mostly back-end and automation experience with some front-end and full-stack exposure.

EDUCATION

University of Colorado Boulder

Bachelor's in Computer Science. Expected graduation date in 2024.

Aug. 2021 - Current

George Washington University

Jan. 2021 - Aug. 2021

EMPLOYMENT

Southwest Research Institute, *Student Research Assistant*, Boulder, CO

Aug. 2021 - Apr. 2022

Back-end developer on NASA's Cyclone Global Navigation Satellite System with respect to the mission's micro-satellite integration.

- Optimized and updated the data processing framework, allowing for processing that is 6x faster than its predecessor.
- Worked with Python2/3, Django, SQL, and Numpy/Pandas in a Linux environment.
- Utilized Jira and Confluence for tickets and version control.
- Used Python Virtual Environments and Anaconda to manage environments across systems and servers.
- Wrote automation software for various servers and mail servers.
- Analyzed data process and cross-server scripts for security concerns.

United States Coast Guard, *Boatswain's Mate Second Class*

Mar. 2017 - Mar. 2021

Search and Rescue specialist with experience leading teams through dynamic and high-pressure missions.

- Boat Captain: in charge of multi-million dollar vessels, crew, and mission completion.
- Officer of the Day: in charge of running the day-to-day operations, briefing commands with situational reports, and coordinating inter-agency operations.

PROJECTS

Robotics Software Integration

- Built robot controllers using C++ and Python.
- Focus on world mapping and motion planning using applied linear algebra, calculus, and search algorithms with heuristics in a real-world setting.

Competitive Mars Rover Communications

- Communication software written in a combination of C/C++ and Python utilizing Universal Asynchronous Receiver/Transmitter (UART) protocol.
- Built for Linux, and implementing for ROS, this software utilizes multi-input and multi-output antennas to communicate from a home-base to a rover.

Automated Stock Trader

- An active project. Written in Java with Gradle as the build automation tool, collects ticker data and places trades on stocks based on market variables.
- Uses API calls to collect ticker data.
- TimeSeries database to store historical data.
- Will have a back-testing framework to test strategies against previous market conditions.
- Made into a JAR file for easy distribution.

Home Server

- Docker running on a Linux computer with containers to self-host a VPN, network-wide ad-blocker, and security software.
- Learned managing various components such as DNS, security patching, and firewalls in a network setting.

Blog and Personal Website

- Written with JavaScript, Svelte, and SvelteKit.
- Allows for blog posts to be written in markdown before embedding the markdown into HTML pages.
- Templating and Svelte components allow for dynamic creation of blog pages on the site without writing HTML for each post.

Competitive Programming Challenges

- Various online challenges solved in languages ranging from Python, Go, Rust, Javascript, C++, and more.
- Used to practice problem solving, algorithms, and optimization when too busy for larger projects.