

Joshua Amberg

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Education

Virginia Polytechnic Institute and State University May 2023 BS, Computer Engineering with focus on Software Systems, Computer Science Minor, Blacksburg, VA • GPA 3.07 • In Major GPA 3.11

Experience

Northrop Grumman

June 2022-August 2022

Software Engineering Intern

Remote

- Worked in a team to to automate the release process of tagged jobs in Jenkins
- Reduced resources used by Jenkins by almost 50% by eliminating an extra build step in the release process
- Shorted overall time to build the pipeline by about 2.5 hours by eliminating interruption time for the release process by automating the process after the initial user input via passing parameters
- Saved the CI/CD team about 4 hours of active time per release by making a shared library groovy file that eliminated user interaction for tagged jobs by making tagged jobs trigger each other properly
- Was a rotating scrum master in our team

CACI

May 2021-August 2021

DSP Intern

Remote

- Designed, created, tested, and integrated an inter process communication system into an enterprise software system using TCP sockets, UDP sockets, or named pipes based on a YAML configuration using C++.
- Designed and created a command line UI that sends messages to a backend manager for a signal processing/transmission/scheduling application using python
- Created a backend manager with an API that interacts with different UIs and a signal processing/transmission/scheduling application using python

Projects

Not-A-Boring Competition Design Team

September 2020-September 2021

Electrical Systems Team Lead

Blacksburg, VA

- Part of the Not-A-Boring Competition (Fall 2021) hosted by The Boring Company
- Single-handedly designed all the electrical systems for the Final Design Package that was submitted.
- The team made the top twelve out of about four hundred to move onto building a prototype for the competition after submitting the Final Design Package.
- Was in charge of designing, testing, building, and leading the sub team in working with sensors, control systems, guidance systems, propulsion systems, communications, safety, and GUI (Electron/React JS).

VT Sailbot

September 2019-September 2020

Software Engineer

Blacksburg, VA

- Part of the autonomy team in the electrical engineering sub team
- Wrote code that determines decisions the boat will make as it competes in various events with different obstacles and objectives while calculating how the boat should move relative to wind to have the boat move properly
- Experience in a team project by working in a sub team and reporting to a team leader

Skills and Interests

- **Skills:** C++, Python, Java, Matlab, Git, Bash, Unix/Linux
- **Limited Skills/Exposure:** Django, HTML, CSS, Javascript, Typescript, Django ORM (SQLite), Electron, React.js, Node.js, Pandas, Bootstrap 5, Groovy
- **Productivity:** Agile method, Jira, Confluence, Bitbucket, Jenkins, Github
- **Interests:** Cooking, Lifting, Gaming, Soccer

Organizations

VT IEEE - General Member

Boy Scouts of America - Eagle Scout