Matthew Freestone

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Summary:

Rising Junior Computer Science Major at Auburn University with strong collaboration experience and communication skills gained through 8 years of participation on STEM teams. Familiarity with Agile methodologies through professional usage. Technical Experience in writing complex flight control software for drones in Python, in Robotics Controllers in Java, and in using GitHub/GitLab for version control.

Education:

Computer Science Major | 4.0 GPA | Graduate Spring 2024 | Auburn University, Auburn, AL

- Member, Auburn ACM (AI Club and Competitive Programming Team)
- Coach, Auburn ACM - Fundamentals of Competitive Programming

Experience:

MAY 2021 – AUGUST 2021 | LOCKHEED MARTIN – SOFTWARE ENGINEERING INTERN

- Worked in a team utilizing Agile methods with tools including Jira and Confluence.
- Collaborated with a small team through daily Scrum and weekly reviews and planning.
- Gained familiarity with the use of common Java tools like Eclipse, Gradle, JUnit, and Mockito.
- Created a tool to show unit test coverage of specific files using a shell script, improving on the previous process of manually checking each file after releases.
- Contributed to an actively developing codebase using GitLab, and gained familiarity with DevOps.

APRIL 2017 – MARCH 2020 | FTC ROBOTICS – SOFTWARE DEVELOPMENT LEAD

- Worked closely with a team to write Java code for a constantly changing robot hardware platform.
- Developed software to allow hardware specialists to assess prototypes more easily.
- Managed virtual Kanban board to keep track of tasks and ensure team collaboration went smoothly.
- Utilized GitHub to oversee multiple software branches and simultaneously develop code with a team.
- Served as Team Captain for Competition Rounds, utilizing quick-thinking, decisiveness, and clear communication.

JULY 2019 – AUGUST 2019 | UAV PROGRAM STUDENT | MIT BEAVER WORKS

- Created efficient control and position estimation Python scripts to autonomously control aerial vehicles.
- Applied computer vision algorithms to autonomously navigate an obstacle-dense environment.
- Streamlined process to start UAV software using scripts to reduce possible human error and injuries.
- Examined and interpreted flight log data to update and correct flight control parameters.
- Interacted with Linux drone flight controller using the command line.
- Managed team's GitHub repositories, approved pull requests, and ensured packages were up to date.

Technical Skills:

- Proficient: Python, AWS, Java, Git, Linux, Bash Scripting, Eclipse IDE
- Familiar: C, C++, SQL, JavaScript, HTML/CSS, C#