

# Christopher Baillie Olin

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5218 Marlyn Dr. | Bethesda, MD 20816

## Education

### University of Maryland

*B.S., Mechanical Engineering and B.S., Computer Science*

- President's Scholarship for Academic Achievement

College Park, MD

GPA: 3.98

Anticipated Dec. 2022

## Skills

**Languages:** Java, Python, Ruby, Javascript, Typescript, OCaml, R, C, MATLAB

**Software:** Solidworks, Autodesk Inventor, EES

**Hardware:** Woodworking tools

## Experience

### Amazon, Prime Video Live Monitoring Team

Seattle, WA

*Software Development Engineering Intern*

June - Aug. 2021

- Created a video defect detector to monitor the quality of Amazon Prime Video live events in production
- Integrated the project with existing video monitoring tools built and maintained by other team members
- Demonstrated the impact of my project by presenting to managers of my team and adjacent teams

### Agentis Air

Rockville, MD

*Engineering Intern*

Jan. - May 2021

- Performed lab tests on portable air purifiers in accordance with published industry standards
- Developed, documented, and performed a new test procedure to characterize an air purifier's change in performance as its filter collects contaminant
- Built a system to perform air purifier efficiency tests automatically by physically adapting the test chamber and writing software to control the procedure and provide a user interface
- Presented the results of tests on our product and competitors' to the marketing team and major investors

### Army Research Lab, E/H-Field Sensing Team

Adelphi, MD

*Software Development Engineering Intern*

June - Aug. 2020

- Engineered a Wide Area Network to securely connect a web of Internet of Things power sensors
- Designed a secure web portal to access multiple sensors' individual configurations and data
- Implemented sensor-level distributed data storage, freeing resources used to store historical data in the cloud
- Summarized and explained my work to a panel of scientists and researchers unfamiliar with my team's work through a remote presentation, and presented weekly updates to my team

## Projects

### Spotify Playlist Genre Analyzer - Data Science Final Project

Python

- Collected and visualized genre data about all songs in a Spotify playlist, using Spotify's API and matplotlib
- Analyzed the gathered data, with the goal of scoring a playlist based on the similarity of its songs' genres
- Displayed results of this study in a webpage (available at <https://bailsonjr.github.io/spotify-playlist-analysis/>)

### Sound Discretizer - Mechatronics Design Project

Arduino

- Constructed and wired a device that listens to its environment and plays back the closest tune, discretized to notes in the A440 12-note scale, in a housing that included a microphone, analog noise filters, and aux. output
- Programmed the internal Arduino, utilizing a Fast Hartley Transform to detect musical pitches
- Recorded a short video to present my project virtually

## Interests

**Clubs:** Rock Climbing (member; former president, 2020), Ultimate Frisbee (member)

**Personal:** Mountain Biking, Road Cycling, Kayaking (former whitewater kayaking instructor, 2017-2019)