# Christopher Baillie Olin

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## Education

**University of Maryland** **College Park, MD**
*B.S., Mechanical Engineering and B.S., Computer Science* **GPA: 3.98**
- President's Scholarship for Academic Achievement Anticipated Dec. 2022

## Skills

**Languages**: Java, Python, Ruby, Javascript, Typescript, C, C++, OCaml, Racket, R, MATLAB
**Software**: Solidworks, Autodesk Inventor, EES
**Hardware**: Woodworking tools

## Experience

**University of Maryland, Digital Signal Processing Computer Aided Design Group** **College Park, MD**
*Undergraduate Research Assistant* Sept. - Dec. 2021
- Debugged and translated a digital signal processing software tool from Java to C++
- Applied pre-trained computer vision models to drone footage and characterized the models' accuracy

**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
- 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
- Summarized and explained my work to a panel of scientists and researchers unfamiliar with my team's work

## 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://olincb.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)