

Christopher Baillie Olin

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Bethesda, MD 20816

Education

University of Maryland

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

- President's Scholarship for Academic Achievement

College Park, MD

GPA: 3.98

Dec. 2022

Skills

Languages: Python, Java, Ruby, JavaScript, TypeScript, C, C++, OCaml, Racket, WebAssembly, R, MATLAB

Technologies: GitLab CI, Docker, Terraform, Helm, AWS, Flask, Dash, Ruby on Rails, Django, NodeJS

Experience

Kroll Bond Rating Agency, Data Engineering Team

New York City, NY

Data Engineering Intern

June 2022 - present

- Modified a Flask API code generator to add authentication with Auth0 to generated APIs
- Transitioned numerous outdated APIs to be dynamically generated, greatly reducing duplicated boilerplate code and allowing for updates to be applied to all APIs with a single code change
- Created a user interface with Dash, giving analysts access to a machine learning model via spreadsheets
- Managed continuous integration and infrastructure as code with GitLab CI, Docker, Terraform, and Helm

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 model accuracy

Amazon, Prime Video Live Monitoring Team

Seattle, WA

Software Development Engineering Intern

June - Aug. 2021

- Built an autoscaling video defect detector with AWS infrastructure to monitor the quality of live events
- 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

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 with NodeJS 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

Personal Website

Ruby on Rails

- Developed a personal website to share information about myself, my projects, and my resume, with content populated dynamically from markdown files, allowing updates to the site's content without changing code
- Utilized Ruby on Rails to create the site and deployed it with AWS Lightsail (available at <https://olincb.me>)

Wacket - Compilers Final Project

Racket, WebAssembly, JavaScript

- Co-created Wacket, a Lisp-inspired language with a compiler that targets WebAssembly, by writing a lexer, parser, compiler, abstract syntax tree, and pretty printer in Racket, and a runtime system in JavaScript
- Source code and write up are available at <https://github.com/stefanhts/wacket>

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

Interests

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

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