

# Christopher Baillie Olin

chris.baillie.olin@gmail.com | (202) 256-5810  
https://olincb.me | https://github.com/olincb  
Bethesda, MD 20816

## Education

### University of Maryland

B.S. Computer Science, Magna Cum Laude

B.S. Mechanical Engineering, Magna Cum Laude

College Park, MD

GPA: 3.98

Dec. 2022

## Skills

**Languages:** Python, JavaScript, TypeScript, SQL, Java, Ruby, C, C++, OCaml, Racket, WebAssembly, x86, MATLAB

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

## Experience

### Kroll Bond Rating Agency, Residential Mortgage Backed Securities Model Team

New York City, NY

Data Engineer

June 2023 - present

- Lead a small, high velocity team of engineers to provide ratings analysts with reliable access to a statistical model capable of running at scale, enabling analysts to perform their jobs far more efficiently
- Maintain a full stack application involving a user interface built on Plotly Dash, a data ingestion pipeline, and a highly concurrent, microservice based model runtime that uses Dask, and serverless AWS compute and ETL products
- Manage continuous integration and infrastructure as code with GitLab CI, Docker, Terraform, and Helm
- Leverage cloud compute SaaS products and SDKs to easily scale resources and optimize spending
- Contribute to libraries, applications and other developer tooling projects used by all teams, increasing developer productivity and maintaining engineering best practices across the engineering department
- Work directly with our internal stakeholders to provide rapid feature development as market conditions demand

### Kroll Bond Rating Agency, Data Engineering

New York City, NY

Data Engineering Intern

June - Aug. 2022

- 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- Transitioned numerous outdated APIs to be dynamically generated, greatly reducing duplicated boilerplate code and allowing for updates to be applied to all APIs with a single code change, saving hours of manual work

### 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, demonstrating a need to spend resources retraining models on more relevant imagery

### Amazon, Prime Video Live Monitoring

Seattle, WA

Software Development Engineering Intern

June - Aug. 2021

- Built an autoscaling video defect detector with AWS infrastructure to monitor the quality of livestreams
- Integrated the project into an existing pipeline, in a large codebase of livestream maintenance tools
- Demonstrated the impact of my project to managers of my team and adjacent teams by presenting numbers of defects detected in production, highlighting the thousands of customers positively impacted by my work

### 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

### Wacket Programming Language

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>

### 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>)