

# David Kyle Rivera

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<https://github.com/rivera-davidkyle>



## Education

### University of Maryland, Baltimore County

Expected 05/2023

- BS Computer Science, Minor in Music
- GPA: 3.86
- Relevant Coursework: Data Structures, Design and Analysis of Algorithms, Software Engineering
- Database Management Systems, Operating Systems, Artificial Intelligence

## Skills

OOP Languages:	Python, C++, C
Frontend:	React.js, HTML, CSS, JavaScript
Backend:	PostgreSQL, Redis, Django Framework, Docker
Project Management:	GitHub, Git, Jira

## Work Experience

### Atmospheric Lidar Group | Software Engineering Intern | 03/2022 - Present

- Maintain and improve a microservices architecture given loosely defined customer requirements with Django Framework, Redis, Celery, and Docker
- Follow a directive through organized team sprints and a timeline based on given requirements through CI/CD and Github
- Developed an SMTP feature that periodically reaches out to more than 100 researchers through Celery and Redis
- Developed a download feature that lets users access more than 5000 daily files within each ceilometer site, utilizing Django REST Framework and Redis, with JQuery and Bootstrap used for the frontend

### UMBC Events and Conferences Services | Production Technician | 08/2021 - 03/2022

- Provided services for events throughout the university campus and cooperated with event organizers to run conferences smoothly
- Assisted in event setups such as audio reinforcement, stage lighting, video projection, and stage rigging/drapery
- Managed sound system and gave on-site technical support during events

## Projects

### Unified Ceilometer Network ([Unified Ceilometer Networks \(ucn-portal.org\)](https://ucn-portal.org/))

- Store, display, and standardize data from Ceilometer LiDAR data from multiple EPA/NASA sites
- Provide asynchronous tasks through Celery that assist researchers on routine tasks
- Represents data through plotting, and provides data access to all users
- Developed through Django, C++, MatLab, and Redis

### 2022 Portfolio Website ([Kyle Rivera \(rivera-davidkyle.github.io\)](https://rivera-davidkyle.github.io/))

- Provided a single-page application that presents my background, experience, and recent projects
- Designed with different components from various libraries such as Material UI and Bootstrap
- Developed through React.js, deployed through Github Pages

### IT Ticketing Website ([ALG Helpdesk \(ticketingitapp.herokuapp.com\)](https://ticketingitapp.herokuapp.com/))

- Provided a helpdesk portal that assists a user to create, update, or delete a ticket
- Sends a confirmation email that the ticket has been received through an SMTP feature, and has a login/logout and user registration system
- Developed through Django Framework, deployed through Heroku

## Publications

[Delgado, Ruben, et al. "Unified Ceilometer Network: Aerosol Profiling for Air Quality and Meteorological Applications" Atmospheric Geophysical Union Fall Meeting 2022. AGU, 2022](#)