Matthew Bunge

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Education

University of Washington, Seattle, WA
Bachelor of Science - Computer Science, Economics

Projects

Project Aether
Air Quality Android App

- Developed app using the Flutter framework that reports on both current weather as well as recent trends, with a particular focus on air quality
- Architected backend using various AWS services including S3, Lambda, DynamoDB, and API Gateway
- Wrote various functions in Javascript to connect between AWS services and external air quality API

Damocles
Online Board Game

- Worked in small team to design and play test game rules of a competitive multiplayer game that incentivizes cooperation between players.
- Designed and implemented online version of game in a React.js based client.
- Developed server backend built on Node.js and Express.js capable of handling multiple game instances with reconnection.

Spotify Skip Button
Spotify Data Logging and Visualization

- Built a client with Java that integrates with the Spotify API to skip the currently playing song on a PC Spotify client
- Developed a MySQL database on Google Cloud to record information about the moment of skip sent from the button, as well as information about the skipped song
- Designed a d3.js graphic to visualize information from the database with filtration by length of skipped song, total number of skips, and average percent through song skipped

Experience

University of Washington
Teaching Assistant – Computational Biology

- Collaborated with instructor and other assistants to develop consistent grading standards
- Debugged approximately 30 student programs per assignment in various languages, primarily Python and Java, to determine cause of incorrect results
- Worked with students during office hours to develop deeper understanding of material