# **Andrew Cupps**

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#### Education

### B.S. Computer Science; B.S. Astronomy

May 2025

University of Maryland - College Park

- UMD Honors College - Honors Global Communities

#### Skills

- Programming Languages: Java, JavaScript, LaTeX, Matlab, R
- Software: Eclipse, Matlab, Visual Studio Code, RStudio, MS Office Suite

## **Projects**

## ALPACA (Platformer Video Game, Java)

Sept-Dec

2021

Backend Developer

- Created a game engine for a platformer video game with an emphasis on project scalability, allowing for entire game levels and objects to be created with just a few lines of code.
- Implemented game physics, collision mechanics, and an intuitive and responsive user-controlled gameplay system.
- Developed a graphical tiling algorithm which allows for game objects to reuse a single tile-set image and automatically generate textures where needed.

## Schreckliche Seuche (Disease Spread Simulator, Java)

Mar-May 2022

Full Stack Developer / Project Designer

- Designed and executed an object-oriented simulation to model disease spread, incorporating various factors based on user inputs.
- Wrote algorithms to generate live graphical visualizations of data relating to simulated disease spread.
- Optimized code to allow for expansion of simulation capabilities by reducing operation runtime and memory requirements.

#### RStudio – HGLO101 (Multiple Small Projects, R)

Aug 2022 -

- Gather data from various online resources and databases.

Present

- Use tidyverse packages such as dplyr and tidyr to convert untidy CSV datasets into usable tidy frames.
- Utilize ggplot2 library to convert tidied data into clear, understandable graphs.

#### Experience

## Jersey Mike's Subs & Sandwiches of Timonium

Mar-Aug 2022

Team Member

- Performed various customer-service tasks in a fast-paced environment, including taking orders, preparing sandwiches, and cashiering.
- Executed operations fundamental to store function, such as cleaning, organizing deliveries of food and supplies, and preparing food between rushes.