

JUSTIN SHIM

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EDUCATION

University of Maryland, College Park

Dec 2024

Bachelor of Science, Computer Science and General Biology

GPA: 3.5

EXPERIENCE

Software Engineering Intern, National Institute of Health – Bethesda, MD

June 2023 – Aug 2023

- Developed an automated pipeline in Bash for downstream analysis of sequencing data, improving the efficiency and reliability of sequencing analysis for future research efforts
- Implemented a Python script to ensure data quality by applying filtering criteria, and an R script to convert Ensemble gene IDs to gene symbols, improving the pipeline's functionality
- Used various computational biology packages to analyze clinical outcomes of cancer patients, acquiring proficiency in the data science life cycle from collection to interpretation
- Presented research and development process to researchers at the NIH on a scientific [poster](#)

Teaching Assistant, Object-Oriented Programming – College Park, MD

Jan 2024 – May 2024

- Assist students with coding projects, clarifying key concepts and demonstrating strong communication and debugging skills
- Collaborated with faculty and other teaching assistants to ensure alignment with course standards, fostering a cohesive and effective learning environment

PROJECTS

Maze Solver in Java

- Developed a maze solver program, using graph traversal algorithms for pathfinding
- Demonstrated proficiency in Java optimization techniques, including the use of Hash Tables/Maps, Sets, Stacks, Queues, Interfaces, and Polymorphism to enhance program performance and maintainability
- Extended program functionality by incorporating a maze generator of varying complexity, allowing users to compare pathfinding algorithms in real-time

Weather App

- Developed a responsive web application using HTML, CSS, and JavaScript to display current weather information for any city
- Utilized the OpenWeatherMap API to fetch and display real-time weather data, including temperature, humidity, and weather conditions

Supermarket App

- Developed a responsive web application with interactive features using Node.js and Express.js, demonstrating proficiency in full-stack development
- Implemented data validation and display features using JavaScript and front-end templates with server-side logic using EJS for dynamic content rendering

SKILLS

Coding Languages

- Python, V-Python, C, C++, Java, JavaScript, HTML, CSS, SQL, MATLAB, Rust, R, AVR Assembly, Bash, Node.js, Express.js, MongoDB

Environments and Practices

- Visual Studio, Jupyter Notebook, Eclipse, R-Studio, GitHub

Other Relevant Skills/Hobbies

- Excel, Google Drive, Davinci Resolve
- Biographies, Club Football, Basketball, Fishing, Aquascaping, Philosophy, Reading