Zachary Gurwitz

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I am a recent graduate from University of Maryland with a double major in Computer Science and Mathematics. My goal is to obtain a software engineering position that utilizes my expertise with algorithms and mathematics. With excellent communication skills and a keen eye for detail, I believe you will find my qualifications to be a strong match for your company.

EDUCATION

University of Maryland (UMD), College Park, MD — December 2022
Bachelor of Science in Mathematics and Computer Science — GPA: 3.775

- *Design and Analysis of Algorithms*: Created and analyzed algorithms for correctness and efficiency.
- *Object Oriented Programming*: Utilized Java to write code in the OOP paradigm.
- *Advanced Functional Programming*: Developed code using Haskell in the Functional Programming paradigm.
- *Applications of Linear Algebra*: Advanced my knowledge of linear algebra by modeling applications including SVD and Markov chains.
- *Gemstone Honors Program*: Designed, conducted, and directed significant research to improve current-day upper-arm prosthetics by making EEG-based BCIs more accurate and accessible.
- *Directed Reading Program*: Advanced my expertise in mathematics and delivered a presentation on group theory to an audience of 100+ people.

RELEVANT EXPERIENCE

Lab Assistant, **Araneda Lab**, College Park, MD — Fall 2021

- Wrote code in python to run data analysis on experiments in MATLAB.
- Consulted with head researcher to provide useful output that is easy for non-coders to understand.

Independent Project, **TourneyShots for BakkesMod Rocket League in C++** — January 2022

- Wrote code for a plugin that added a scoreboard to the game.
- Developed new software for an already existing API.

LEADERSHIP EXPERIENCE

Math Coach Leader (MCL), **Math Success Program**, University of Maryland — Spring 2020 – Fall 2022

- Coached groups of students who needed extra support and review of math skills and concepts.
- Created a welcoming environment for students and promoted confidence in math-related knowledge.
- Advised and worked alongside Math Coaches to effectively offer support to large volumes of students.

SKILLS

Programming Languages: Java, Haskell, C, C#, C++, Python, Processing, MATLAB, Microsoft 365

Software Engineering: Design efficient algorithms; provide deliverables with specified functionality; develop computer graphics for data representation and gaming; research functionalities in many programming languages.

Mathematics: Linear algebra, differential equations (ordinary and partial), computational methods, contest math.

HONORS

- *Dean's List:* Fall 2019, Fall 2020, Fall 2021, Spring 2022, and Fall 2022