Marcus Gozon

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Education

University of Michigan

Ann Arbor, MI

Bachelor of Science, Computer Science

Aug. 2021 - April 2025

Bachelor of Science, Honors Mathematics

Aug. 2021 - April 2025

- Coursework: Honors Math I (Advanced Calculus and Analysis), Honors Differential Equations, Honors Multivariable & Vector Calculus, Linear Algebra, Programming and Intro Data Structures, Intro to Linguistics, Honors Math II (Advanced Linear Algebra and Analysis), Intro to Combinatorics, Intro to Modeling Political Processes
- Activities and Societies: UMich Programming Team, Michigan Hackers Machine Learning Team
- Technical Skills: C++, Java, Git, JavaScript, React, Firebase, Unity, C#, Python, HTML, CSS

Experience

Computer Science Team Captain

Oct 2020 - May 2021

Pioneer High School

Ann Arbor, MI

- Taught other students Data Structures and Algorithms common throughout CS competitions every other week
- Created many resources including guides and problem sets for members
- Received the Ray Pittman Award for contributions to the coding team

Math Club Founder and President

Sep 2020 - May 2021

Pioneer High School

 $Ann\ Arbor,\ MI$

- Taught other students advanced mathematics common throughout math competitions every week
- Created many resources including guides and problem sets for members
- Received the Mary Strand Danforth Award for contributions to mathematics at Pioneer

Physics Tutor

Nov 2020 – May 2021

Pioneer High School

Ann Arbor, MI

• Tutored a student weekly on AP Physics concepts

Projects

Life Organizer | JavaScript, React, Firebase, Tailwind CSS

- Developed a web application to keep track of tasks and projects in a hierarchical structure by utilizing a tree
- Integrated Firebase to allow users to sign in and store their data

Maze Generator | Unity, C#

- Developed a game that generates its own mazes by using a randomized minimum spanning tree
- Used the Fisher-Yates Shuffle to generate collectibles within the maze

Image Resizer $\mid C++$

Implemented a content-aware image resizer by using dynamic programming

Galaxy Escape | Java, Greenfoot

• Created a planet-based platformer by implementing object positioning, the camera view, zooming, collision, and planetary gravity

Infinite Maze | Unity, C#

• Developed a non-euclidean maze based off of a prefix tree

Color Board | Unity, C#

Developed a board game with scoring based on adjacent edges and edge streaks by utilizing a disjoint set

Awards

- Alice Webber Glover Math Scholarship for impressive achievement in mathematics
- USA Computing Olympiad Platinum Division reached Platinum Division, which is composed of the top 350 pre-college students in the nation
- American Invitational Mathematics Examination Top 500 placed among the top 500 with a score of 10/15 on the AIME, an exam given to the top 5% of participant on the American Mathematics Competition
- Michigan Mathematics Prize Competition Bronze Medal placed 43rd overall from over 4000 students
- Math Kangaroo Gold Medal Received a perfect score on the grade 11-12 examination