

Ori Friesen

Student

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Projects

Snax / The Social Snacking Platform

September 2020 - Present

Developed an app in Flutter that intends to bring the snacking world their own social media site. The app allows users to review and rate a multitude of snacks and post their opinions to their friends. With this project, I learned how to develop cross-platform apps in Dart and how to implement Firebase usage for the app. Developed key communication and agile skills in a virtual environment with three team members.

TRACC / Tracking Relevant Activities of Climate Change

September 2019- December 2019

For the Congressional App Challenge, I was a part of a team that developed an app in Android Studio that would show the user data of how climate change has affected them using their location. Developed the app in Android Studio using Java. Used the Dark Sky library to gather data, Google Map services for the interactive map, and GraphLib to present the data.

Battleship Algorithm

March 2021- Present

Developed a program that takes a given battleship game and uses the probability of a ship taking place on each cell to find the best possible shot. The program is made in Python and I am currently working on making an interactive website using React JS and implementing the Python algorithm using Google Cloud Functions.

Maze Generator

March 2019- May 2019

Developed a program in C++ that generates a maze using backtracking and recursion. The generator works by breaking walls between cells and once it reaches all the cells, the maze is complete with a path from the start to the end.

Sudoku Solver

February 2018- June 2018

As my final for my Computer Science 3-4 class, I made a program in C++ that allows the user to submit a sudoku puzzle that would be solved by the program. By using recursion, the algorithm goes through all the possible inputs for each cell and sees if the total puzzle can be solved. If not, the algorithm backtracks and repeats to eventually get the answer.

Education

Wilson High School/ Student

September 2017- Present

Senior at Wilson High School with a weighted GPA of 4.182. While participating in a multitude of extracurricular activities, I have taken a total of 8 AP classes and 2 dual-credit classes with PCC.

Portland State University/ Non-Degree Student

September 2019 - Present

Attended PSU as a non-degree student and took both MTH254, multivariable calculus, and MTH356, discrete mathematics.

Macalester College/ Computer Science/Physics/Math

September 2021- May 2025

Enrolled as a freshman for 2021. Currently undecided as of major, but planning on a Computer Science/Physics or Computer Science/Math double major.

Activities

Wilson Robotics / Captain, Design Lead, Code Lead

September 2017 - Math 2020

Was the head designer and software developer for my FIRST Tech Challenge team. Learned how to use Java in Android Studio for software engineering and used many different libraries such as TensorFlow for vision detection and motion profiling libraries.

Prisma Robotics / Founder, Design Lead

September 2020 - Present

Started student-led community robotics program focused on the FIRST Tech Challenge (FTC) Competition. Focused on raising funds and obtaining sponsors. As the leader, I had a major focus on implementing agile development through the use of bi-weekly scrum meetings where I held the role of Scrum Master.

Wilson Speech and Debate / Parli Captain, Varsity Debater

September 2018 - Present

Competed in Parliamentary Debate at 15 tournaments, winning 3. Taught incoming members debate and argument fundamentals and public speaking skills.

Wilson Computer Science/ Student

September 2017 - Present

Was a student in Computer Science at Wilson for 4 years. Started at CS 3-4 and ended at CS9-10. In these classes, I learned a multitude of programming languages such as 2 years of C++, 1 year of C#, 2 years of Java, 1 year of Flutter/Dart, 1 year of HTML/CSS/JavaScript/Node.js, and 2 years of Python. Also learned non-technical skills such as agile development, technical-based presentation skills, team working, paper prototyping, and design documentation.

Awards

Congressional App Challenge semi-finalist

Placed 7th out of 62 teams in the Valor CAD Challenge, a Computer-Aided Design challenge that encourages complex and innovative designs to complete a hypothetical robotics challenge.

Rose City Astronomers Young Astronomer Award winner for my research in how light pollution affects the night sky and zenith sky brightness in SW Portland.