Simran Dhaliwal

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EDUCATION

University of Michigan **Ann Arbor, MI**
Bachelor of Science in Computer Science *Expected Graduation: April 2024*

EXPERIENCE

Wail of a Tale - Software Enginner Intern June 2023 - Present
Javascript, WebGl, ThreeJs, Git, CSS

- Led team of interns through transitioning company website to new hosting platform and implemented rolling updates
- Developed an interactive 3D visualization of company employees and information using WebGL and threejs
- Engineered a user-friendly chatbot with dynamic question-response system and message forwarding

University of Michigan Solar Car Team (UMSCT) - Developer August 2022 - Present
SQL, Javascript, Python

- Enhanced Telemetry subsystem performance by 15%, through proactive debugging, and optimization, leveraging SQL for accelerated statistics display and efficient aggregation of critical data from 8 distinct vehicle sensors.
- Collaborated with multiple teams to create three cloud-based race simulators, incorporating advanced statistical modeling to accurately simulate diverse weather and road conditions, among other crucial factors.

PROJECTS

Wolverfind *November 2023*
React Native, SQL, CSS, Git

- Collaboratively levaraged SQL and React Native to create Wolverfind, a multi-platform event finding social media application for the University of Michigan
- Implemented creator and student accounts used by over 20 organizations to allow students to to effortlessly discover, interact with friends attending the same events, and influence event popularity through upvoting.

Portfolio (simrandhaliwal.dev) *May 2023*
React, CSS

- Engineered an immersive portfolio using React and CSS, blending visual appeal with seamless functionality
- Integrated social media links and a user-friendly contact form, enhancing user engagement and establishing a direct communication channel

Contagious Diseases Data Analysis *December 2022*
Python, Machine Learning

- Utilized 6 Machine Learning algorithms in Python to analyze over 1000 unique data points with 12 factors to gain insight into spread and severity causes
- Enhanced clarity and impact of data interpretation through the generation of 15 distinct representations of the model's results for data analysis with the use of Python

Mechanical and Chemical Physics Simulators *April 2022*
Vpython

- Developed 27 unique physics simulators in Vpython to depict phenomena ranging from micro-level molecular interactions to macro-level celestial collisions
- Created programs to compute complex variables involved in scientific simulations, applying theoretical concepts while accounting for real-world deviations

COURSEWORK

Mobile App Development, Artificial Intelligence, Data Structures and Algorithms, Database Management Systems

SKILLS

C++, C, SQL (MySQL), Query Optimization, Python, VPython, R, React, CSS, HTML, Java, Javascript, Git, MongoDB