AARON PHILIP

aphilip@umich.edu | 734-896-0620 | www.linkedin.com/in/aaronphilip2002

EDUCATION

UNIVERSITY OF MICHIGAN, ANN ARBOR
Bachelor of Science and Engineering in Computer Science **May 2024**

- **Academic Honors:**
  Dean's Honor List, University Honors (Fall 2020, Winter 2021 & Fall 2022)
  Member of the National Society of Leadership and Success (Spring 2022)
- **Relevant Coursework:** Foundation of Computer Science, Data Structures and Algorithms, Programming and Data Structures, Intro to Computer Organization, User Interface Development, Discrete Math
- **Skills:** C++, C, Java, Python, JavaScript, HTML, MATLAB, R
- **Certifications:** CodePath Advanced Software Engineering (Aug 2022)

LEADERSHIP AND EXPERIENCE

Wolverine Sports Analytics **Sept 2021 – Present**

- Worked with the Michigan Basketball Team employing visual tracking tools and statistic modelling software to determine the viability of the mid-range shot.
- Implemented web-scraping techniques from Sports Reference and CBB analytics to create easier functionality for game analysis and data modelling through use of the Pandas library and SQL.
- Generated visual data models on R derived from Catapult tracking data on players to analyze efficiency of load management for the Michigan Basketball Team.
- **Technologies Used:** Python, SQL, R

CodePath **May 2022 – Aug 2022**

Advanced Software Engineering Student

- Spearheaded group meetings with international students to help facilitate a deeper core understanding for algorithmic problem solving and data structures.
- Collaborated with instructors and students in developing an optimum approach for efficient problem-solving in technical interviews, utilizing the STAR framework.
- **Technologies Used:** Java, Python

PROJECTS

Pokémon **Dec 2021**

- Employed MST algorithms like Prim's and Kruskal's to calculate nearest Euclidean distances for catching simulation
- Implemented a fast heuristic of the TSP algorithm which achieved 100% accuracy in less than 2.5 seconds on all inputs
- **Technologies Used:** C++

Stock Market Simulation **Feb 2022**

- Created a virtual stock exchange market utilizing comparators, priority queues and structs to accelerate decision-making procedure for traders to buy or sell shares of a stock
- Deployed verbose and median output formats of program with 100% success rate on trade order inputs of less than 30 lines in test files
- **Technologies Used:** C++, Excel

LC-2K Assembler and Simulator **Aug 2022**

- Assembled a simulator of LC-2K ISA which executed instructions of RISC architecture on any machine code files
- Developed an assembly language program which can multiply any 2 15-bit input numbers in less than 1 second
- **Technologies Used:** C, C++

Asteroids Video Game **Sep 2022**

- Developed functional features like spawn logic, collision detection and the scoreboard using JavaScript and jQuery
- Wrote CSS and HTML files that implemented the landing page, instruction manual and settings panel for users
- **Technologies Used:** JavaScript, HTML, CSS

ADDITIONAL INFORMATION

Languages: English, French
Extracurriculars: Indian American Students Association, Social Tennis Club, Intramural Basketball, Indian Dance Production and Theatre