Michael Berliant

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About

I am a second-year computer engineering student at the University of Ottawa, and I am passionate about web development, utilizing programming for modeling, and understanding computer architecture. My approach to problem-solving emphasizes simplicity and readability, and I am committed to delivering results. I have done various projects that are rooted in frontend stack, Java, and Python. Additionally, I have engaged in hands-on laboratories across software, computer, and electrical engineering domains, utilizing softwares such as Quartus, Multisim and Android Studio.

Skills

Languages: JavaScript, HTML, CSS, Java, Python, SQL, C++
Tooling: Data Structures and Algorithms, UML, Arduino Uno, Basic Computer Assembly/Architecture, Eclipse, Firebase, Android Studio

Projects

Binary Function Grapher | *Three.js, JavaScript, HTML, CSS* |

- To create the f(x,y) graph, I used Three.js to make a plane geometry that would change its z-coordinates to match the input. Also used to make custom material and cartesian planes.
- Utilized regex to recognize custom made sigma function and to append Math. to functions that are JavaScript math methods.

Additional Abilities | *JavaScript, JQuery, HTML, CSS* |

- Programmed content script to manipulate DOM text, popup script to input needed information and display clipped text, and event page to make the abilities executable via the context menu.
- Managed storing and sharing information between files with Chrome Storage.
- Leveraged JQuery to select/create elements in the popup.
- Additional Abilities has been downloaded world wide from the Chrome Web Store 100+ times.

Paris Metro | *Java* |

- Created Graph class as data structure for the edges and stations read from the text file.
- Architected Paris Metro Class to perform 3 different path finding calculations which implemented Depth First Search, Dijkstra's algorithm, and Dijkstra's algorithm with a restricted line for efficient traversals.

Education

University of Ottawa | Bachelor of Applied Science Computer Engineering Program | September 2022 - 2026

Experience

Nepean High School | Computer Science Tutor | February 2022 - June 2022
Tutored grade 10 and 11 students in computer science classes by helping them with C++ practice problems and concepts. Student grades improved by 10-20% in turn.

Corona School of Gymnastics | Coach Assistant | September 2018 - June 2019
Assisted the coach during the gym classes. Monitored young students during their gymnastics exercises. Arranged the gymnastics stations and verified their safety.

Community Center | Stage Scenery Designer | 2018
Designed the background wallpaper for a stage for a performance by an elderly people group. Lead the stage scenery decoration installation.

School Robotics Club | Team Lead | 2016
Worked on various Lego Mindstorm projects. Coached new team members. Lead the team during city level competitions, in which the team won awards.