

# David Kusimo

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## Education

### Carleton University

Bachelor of Computer Science Honours, Stream: AI and Machine Learning

Ottawa, Ontario

2024 – 2028

## Technical Skills

**Languages:** Java, Python, C, JavaScript, HTML/CSS, Javascript XML

**Developer Tools:** Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse

## Experience

### STEM Tutor

Oct 2023 – Jul 2024

STEM Stars Tutoring

Remote

- Successfully developed and launched a tutoring organization to be a go-to resource for students seeking academic help in STEM
- Instructed STEM related courses for over 15 participants within high schools across Canada, utilizing various practices to empower their abilities and boost student acquisition by 300%
- Collaborated with a team of 6 tutors to create a positive learning environment amongst students learning to code

## Projects

### Just Jubilate | Python, OpenCV, TensorFlow, MediaPipe

Nov 2024 – Nov 2024

CU Hacking – Computer Vision

Ottawa, ON

- Conceptualized and developed an interactive dance-based game utilizing computer vision algorithms to promote engaging indoor workouts for a better fitness experience
- Programmed a monitoring system to track 32 key body landmarks in real time, surpassing mobile solutions using 8-12 points
- Integrated a MediaPipe Pose module to boast an accuracy rate of over 95% for body landmark detection

### FloodWatch | Javascript, CSS, HTML, React, Vite, Node.js, Git

Oct 2024 – Oct 2024

Nasa Space Apps

Ottawa, ON

- Established a program using ARCGIS to analyze the effects of flooding in Canada and the consequences over time, resulting in a 25% improvement in data accuracy and geographical insights
- Constructed a responsive website featuring 3 tabbed pages, incorporating images and a user-friendly design
- Achieved a certificate of outstanding participation and efforts to address challenges faced in Earth and in space

### SafeSpace | Javascript, Javascript XML, CSS, HTML, React, Vite, Spotify API, Wit.ai

Sept 2024 – Oct 2024

Hack the Hill

Ottawa, ON

- Designed an innovative web application using React to assist users, taking all their favourite comfort activities to one platform
- Engineered and trained Wit.ai model with 33 diverse utterances to enhance natural language understanding and user interaction accuracy by 80%
- Integrated Spotify API into application to enable seamless music retrieval and improve user functionality

### Battleships | Java

Dec 2023 – Jan 2024

Tommy Douglas Secondary School

Vaughan, ON

- Developed a robust replica of the famous Battleships game with IntelliJ IDEA using Java
- Implemented object orientated programming to produce a 2 player and single player version of the game in the same program
- Visualized a map of the game as it runs, increasing the ability to interpret the game by 100%

## Leadership and Contributions

### Carleton Planetary Robotics Team

Nov 2024 – Present

Software Team Representative

Ottawa, ON

- Assembled and tested LED circuits, achieving a 25% improvement in feedback clarity and enhancing lighting patterns for system indicators
- Performed debugging and optimization across diverse software systems to enhance performance and reliability
- Collaborated with Mechanical and Electrical team members to implement firmware updates and troubleshoot system-level issues

### Programming Club

Sept 2023 – Jun 2024

Vice President

Vaughan, ON

- Oversaw bi-weekly club meetings, consistently facilitating over 20 members per session
- Planned out diverse lecture plans to encourage numerous backgrounds of knowledge and deliver various aspects of Computer Science
- Provided support for new and existing club members, ensuring clarity in understanding key concepts by 75%