Melissa Katz

Email: melissa.katz.ca@gmail.com

Personal webpage: https://melissa2661.github.io/

Curriculum Vitae

Education:

2025 –   : McGill University, PhD, Department of Computer Science

2023 – 2025: McGill University, Master of Science (Thesis), Department of Computer Science

2020 – 2023: McGill University, Bachelor of Science, Computer Science Major

2018 – 2020: Marianopolis College, Pure and Applied Science program

Known programming languages:

High proficiency: Java, Python, C, C++, HTML/JavaScript/CSS

 Java/C: good grasp of concurrent programming techniques

 Python: experience with machine learning libraries (scikit-learn, keras, pytorch)

 C++: experience with OpenGL, CGAL

 HTML/JavaScript/CSS: knowledge of Node.js, Vue.js, Bootstrap, Bulma

Good proficiency: shell script (bash), C#, SQL, MATLAB

Work Experience:

 Tutoring:

  Math tutor at Marianopolis College: Fall 2019, Winter 2020

  Computer Science Tutor at McGill: Fall 2021, Winter 2022, Fall 2022

  TEAM mentor at McGill (Foundations of Programming class): Winter 2022, Fall 2022

  Teaching Assistant at McGill:

   Fall 2023 (Algorithm Design)

   Winter 2024 (Introduction to Computer Graphics),

   Fall 2024 (Advanced Image Synthesis),

   Winter 2025 (Introduction to Computer Science)

Industry Work:

Summer 2022: Intern at ULTRA Electronics. Responsible for creating an application that managed the distribution of licenses. Required knowledge of C# and SQL.

Research:

2023 – 2025 : Completing a thesis at the McGill Computer Graphics Lab, supervised by Paul G. Kry, co-supervised by Sheldon Andrews.

Summer 2022: Completed a research project at Prometheus Lab (Professor Vybihal)

Summer 2021: Intern at the McGill Computer Graphics Lab (Professor Kry)

Publication:

Katz, Melissa, Paul G., Kry, and Sheldon, Andrews. "Rig My Ride: Automatic Rigging of Physics-based Vehicles for Games".Proceedings of the ACM on Computer Graphics and Interactive Techniques 8, no.4 (2025).

Volunteering:

2024-2025 : Web chair for the Symposium on Computer Animation for 2024 and 2025. Responsible for maintaining and updating the conference's website.

2025 : Student Volunteer at SIGGRAPH 2025, in Vancouver.

Research Interests:

Physics-based animation, computer vision, machine learning

Known languages:

English, French, Russian