

# Tyson Moll

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Portfolio: [tysonmoll.ca](http://tysonmoll.ca)

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## Technical Skillset

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### Programming:

Experienced with C#, JavaScript, Python, MATLAB, Smalltalk, Git, Arduino, GML  
Proficient with C, C++, Elixir, Java, Assembly (for Altera, ARC, M6809 boards), Oracle SQL

### Design Software:

Adobe Suite, MS Office, Rhinoceros 3D w/ Grasshopper, Blender, AutoCAD, Fusion 360

## Education

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### Bachelor of Science, Computer Science (B. Sc.)

Ryerson University, Toronto, ON

Expected Graduation: Apr 2022

- CGPA: 4.17/ 4.33 (A/A+) since January 2022

### Master of Design, Digital Futures (M. Des.)

OCAD University, Toronto, ON

Sept 2018 - Apr 2020

### Bachelor of Architectural Studies, Design Stream (B. Arch)

Carleton University, Ottawa, ON

Sept 2012 - Apr 2016

## Featured Projects

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### 'Multimodalities in Metadata / Gaia Gate' (Graduate Thesis)

Sept 2019 - Apr 2020

- Developed a 'multimodal camera' in a modularly-structured Unity (C#) project with Visual Studio that embeds metadata about a location into new and existing photographs using API calls and steganography (Biome, Anthrome, Weather, Celestial Data, etc.)
- Designed and produced procedural level design algorithms leveraging the images and data
- Researched existing metadata, cryptography, digital media and data representation techniques to develop a proposal for a new format of metadata documenting a digital object's external context dubbed External Contextual Metadata (ECM)

### 'River Styx', a VR Kayaking Adventure (with S. Juyal and G. Yeboah)

Nov 2018

- Produced an interactive VR Unity game using a selfmade Arduino kayak paddle controller, presented in public exhibition

### 'Hella Fresh Express' Mobile Game (with B. Moll)

March 2017 & June 2019

- Designed and produced gameplay and vector artwork assets for a browser- and mobile-based memory game in the Unity game engine (published on Google Play, itch.io, and Newgrounds)
- Refactored and improved the collaborator's original codebase post-launch to resolve bugs, provide quality-of-life features, respond to player concerns, and improve aesthetics

## Relevant Work Experience

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### Research Assistant, SMAC Lab

OCAD University, Toronto, ON

Oct 2021 - Feb 2022

- Developed and maintained a multi-user, web-based virtual XR environment to showcase student digital media works using JavaScript and the A-Frame library
- Prepared easy-to-use documentation to provide non-programmers everything they need to quickly upload and establish virtual galleries for their works and design intentions