Tyson Moll

Portfolio: tysonmoll.ca +1 (647) 269-0566 | t.moll@outlook.com | Toronto, ON, M4J

Summary of Qualifications

- Achieved 4th year standing in Computer Science at Ryerson University
- An interdisciplinary portfolio of digital games, 3D fabrications, design projects, and electronic curios from scholarly and extracurricular projects
- Strong communication skills as developed through architectural panels, critiques, written reports, group assignments, and thesis defenses
- Independently conducted research and applied findings towards the completion of a thesis on External Contextual Metadata (ECM) in Digital Media. Project outcomes included a procedurally-generated mobile camera game as a demonstration of ECM's applications in level design.

Technical Skillset

- Programming: Python, Java, C, C#, C++, MATLAB, Smalltalk, Elixir, JavaScript, Git, Assembly (ARC, Altera, M6809), GML, HTML & CSS
- Game Engines & PLDs: Unity, GameMaker: Studio, Arduino, Altera Cyclone V FPGA
- Design Software: Adobe Suite, MS Office, Rhinoceros 3D w/ Grasshopper, Blender, AutoCAD, Fusion 360, Revit, Aseprite, Cura

Education

Bachelor of Science, Computer Science (B. Sc.) — Expected Graduation: Apr. 2022
Ryerson University, Toronto, ON — (4th Year Student)

- CGPA: 4.14/ 4.33 (A/A+)
- Studies include Computer Graphics, Media, Robotics, VR, Artificial Intelligence, Databases, Cryptography and Computer Security
- Transferred from University of Toronto (Sept 2016 - Apr 2018)

Master of Design, Digital Futures (M. Des.) — Sept 2018 - Apr 2020
OCAD University, Toronto, ON

- CGPA: 89 / 100 (A)
- Designed and researched modern innovations in digital media technologies such as microcomputers, AI, body-centric tech, and web applications.
- Thesis document published at http://openresearch.ocadu.ca/id/eprint/2932/

Bachelor of Architectural Studies, Design Stream (B. Arch) — Sept 2012 - Apr 2016
Carleton University, Ottawa, ON

- CGPA: 8.93 / 12 (B+), Entrance Scholarship (90%)
- Fourth year project "Gossiping Towers" featured on the cover of ARCHITECT Magazine, September 2016 issue (in collaboration with Shawn Duke).

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Work Experience

Research Assistant, Visual Analytics Lab — Apr 2019 - Oct 2019
OCAD University, Toronto, ON

- Researched and developed UI / UX solutions for OMX's procurement platform in a team of six, taking a lead role in producing revised mockups and interactive prototypes of the site's Contract Lifecycle Management platform with a brand new visualization panel and filtering system

Teaching Assistant, Introduction to Game Studies — Sept 2019 - Dec 2019 + Sept 2020 - Dec 2020
OCAD University, Toronto, ON

- Graded all written theory assignments and lectured on game development strategy for independent studios for a class of 60 students, focusing on fostering student research skills, documentation, and critical analysis

3D Printing Technician, The Hatchery — May 2018 - Aug 2018
University of Toronto, Toronto, ON

- Managed and operated a business incubator's 3D printers, tracking orders and providing necessary maintenance

Featured Projects

Multimodalities in Metadata / Gaia Gate — Sept 2019 - Apr 2020
Graduate Thesis, OCAD University, Toronto, ON

- Developed a 'multimodal' camera that captures and embeds locative information (Biome, Anthrome, Weather, Celestial Data, etc) into new and existing photographs via Steganography
- Designed and produced procedural game levels corresponding to these images and their 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: External Contextual Metadata (ECM)

River Styx - A VR Kayaking Adventure — Nov 2018
Graduate Thesis, OCAD University, Toronto, ON

- Designed and constructed a kayak paddle controller with an Arduino communicating via USB
- Collaborated with Shikhar Juyal and Georgina Yeboah to produce an interactive VR game using the controller as a navigation device and presented the project at public exhibitions

Hella Fresh Express (with Brigham Moll) — March 2017 & June 2019

- Prepared vector artwork assets and gameplay design 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 original codebase post-launch to resolve bugs, provide quality-of-life features, respond to player concerns, and improve aesthetics