

THOMAS PLAGAKIS

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Education

McMaster University - *Hamilton, ON*

Sept 2022 - Present

- Computer Science Co-Op (B.A.Sc.), expected graduation in 2026
- VP Communications of the McMaster Game Development Club

Skills

- Languages: C++, C, Java, Python, Bash, PowerShell, Lua, SQL, HTML/CSS
- Frameworks and Engines: SQLite, GTest, Godot, Unity, ROBLOX, OpenGL
- Tools: Git, GitHub, Slack, Linux, CMake, Agile

Projects

Lox | Programming Language Interpreter

Aug 2023 - Present

Technical Skills: **C++**

- Implementing a C++ version of the Lox language's tree-walk interpreter with a custom lexer and recursive-descent parser, and efficient AST traversal
- Automating compilation and unit testing with CMake and GTest libraries

Ubisoft NEXT Competition | C++ Desktop Application

Jan 2023 - Apr 2023

Technical Skills: **C++**

- Used an OpenGL API to create a game framework for Ubisoft NEXT 2023
- Optimized CPU caching by implementing an entity component system that uses data locality to reduce the amount of cache misses and branch mispredictions during execution
- Designed and implemented type-safe delegates to enable event-driven architecture
- Developed and employed unit tests to ensure functionality of essential systems
- Awarded **3rd place** among 100+ university-level contestants across Ontario

Hall of Palettes | Godot Web Game

Jul 2022

Technical Skills: **Godot, GDScript**

- Led a team of 2 to fully develop, test, and publish a game over the span of 3 days
- Licensed to ArmorGames.com and received over 20k+ plays on their website
- Awarded 4th place in a weekend-long game jam

Audio Rolloff Visualizer | Lua Plugin for ROBLOX

Mar 2022

Technical Skills: **Lua, ROBLOX**

- Developed a Lua plugin for the ROBLOX game engine which allows developers to visualize the range at which clients can hear sound instances in 3D space
- Received 100+ sales and 700+ views on the official ROBLOX developer forum

Tower Defense Game & Framework | Java App

Sept 2021 - Jan 2022

Technical Skills: **Java, Swing**

- Built a Java-based game framework to run a "tower defense"-style desktop game
- Utilized Java's Swing toolkit to construct user-friendly GUI and game interfaces

Employment

Digital Creation Assistant - *Vaughan Public Libraries*

Jun 2023 - Aug 2023

- Designed and ran a ROBLOX program for children to teach basic game design and 3D tools
- Assisted in the development of library programs for STEM learning, including 3D printing

Operations Assistant - *York University Housing Services*

May 2023 - Jun 2023

- Developed **PowerShell scripts** to automate email sorting and eliminate redundant data entry
- Handled maintenance requests and assisted in directing contractors for residence work orders