

Mohamed Kazma

<https://moekaz.github.io/>
mohamed_kazma@hotmail.com | +1 (613) 700-0828

LINKS

Github:// [moekaz](#)
LinkedIn:// [mohamed kazma](#)

EDUCATION

CARLETON UNIVERSITY

BS IN COMPUTER SCIENCE

Expected December 2019 |
Ottawa, ON

Cum. GPA: 3.5 / 4

Major GPA: 3.55 / 4

SKILLS

LANGUAGES:

C++ • C • C# • Java •
JavaScript • CSS • HTML •
Python

FRAMEWORKS:

Node.js • Pug(Jade) • Express.js •
JUnit

TECHNOLOGIES:

Unreal Engine • Unity • MongoDB •
Git • SVN • SQL

LIBRARIES:

OpenGL • GLSL • SFML • JQuery •
Socket.io • Swing

EXPERIENCE

CANADA REVENUE AGENCY | AUTOMATION TESTER-JAVA

Sept 2019 - Present | Ottawa, ON

- Wrote unit tests for user stories in **Java** using the **JUnit** framework
- Worked on a library that is used by the team to write tests that allow us to navigate through the application using **RMI** for remote function invocation
- Developed an agile git workflow with a branching strategy and a code review system using merge requests

ROSS VIDEO | SOFTWARE DEVELOPER-JAVA

Sept 2018 - Dec 2018 | May 2019 - Sept 2019 | Ottawa, ON

- Software Developer on **DashBoard**, a software program used to make connecting and configuring broadcasting devices a lot easier as well as scriptable logic and api calls
- Worked on a scheduler product that creates a manager for broadcasting devices and send certain API calls at a certain scheduled time or instantaneously using the UI
- Fixed bugs and added multiple features with testing for functionality using unit and integration testing with **JUnit**
- Worked on build pipeline with **Maven/Tycho** to generate a build script that will be used to create an executable build of our product

CARLETON UNIVERSITY | TEACHING ASSISTANT

Sept 2017 - May 2018 | Jan 2019 - April 2019 | Ottawa, ON

- Assisted with second-year data structures and web development as well as discrete mathematics courses
- Held office hours to help students understand course material as well as approach problems they are facing

PROJECTS

MTRX ENGINE August 2018

- Physics Engine based on **C++** using libraries such as **GLM**, **SpdLog**, **GLAD**, **GLFW**
- Implemented Rigidbody dynamics with Newtonian Physics with force application and integration of said forces and generating torques to create a rotation when necessary as well as basic inertia tensors used for simulating said rotational forces
- Added basic bounding collider volumes(sphere, capsule, box, convex shape colliders) that are used in basic collision detection algorithms and are also helpful for raycasting query algorithms
- Created an implementation of GJK an algorithm used for collision detection on any 2 convex shapes for more complex and finer collision detection
- Implemented a bounding volume hierarchies which creates hierarchies of bounding volumes(colliders) which helps in making collision detection more optimized
- Added force generators that are used to easily add a certain force to a rigidbody (gravity, drag, buoyancy, spring forces etc...)

FRONTIER GUILD January 2018

- A 3D real time strategy game using with turn based combat and random combat encounters **Unity** to build the game world, script player and unit behaviors as well as set up the scene's UI