

Mohamed Kazma

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EXPERIENCE

ESCAPE VELOCITY ENTERTAINMENT | GAMEPLAY PROGRAMMER

Jan 2025 – Present | Remote

- Worked closely with designers in setting up tools and gameplay systems that they needed
- Prototyped different gameplay systems for designers to use in building multiple features as well as cosmetic systems
- Ported different gameplay, AI, and Animation systems to new Netcode setup and wrote netcode systems to support designers and other programmers in their porting efforts

GEARBOX SOFTWARE | ANIMATION PROGRAMMER

April 2023 – Sept 2024 | Remote

- Developed an Interactive corpse actor system that allows scene designers to drag and drop a corpse onto any scene with an optimized SkeletalMeshComponent
- Redesigned the cloth system from UE5 to support cloth asset sharing and syncing and reworked cloth LODing system
- Worked on different optimizations to the cloth asset system which optimize setup time of cloth actors and drastically decrease memory footprint of assets
- Fixed different bugs and added features within Chaos Cloth simulation related to environmental collisions and goring systems and provided designers with different Animation and Physics tools for their workflows

ROCKSTAR GAMES | ANIMATION PROGRAMMER

March 2020 – April 2023 | GTA, ON

- Worked on Procedural Motion Reaction systems with physics-based animation driven ragdoling and state machines for managing AI states of said procedural reactions
- Wrote state and animation networks with Blend Trees and Nodes for blending between animations
- Implemented systems and logic for streaming animation clipsets for running behaviors

ROSS VIDEO | SOFTWARE DEVELOPER

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

- Worked on DashBoard, a program that simplifies connecting and configuring broadcasting devices with scriptable logic and API calls
- Developed a scheduler product that creates a manager for broadcasting devices and send certain API calls either on a scheduled time or instantaneously

CANADA REVENUE AGENCY | AUTOMATION TESTER

Sept 2019 - Dec 2019 | Ottawa, ON

- Worked on library that is used by the team to write tests that allow us to navigate through the application using RMI for remote function invocation

PROJECTS

MTRX ENGINE | AUGUST 2018

- Physics Engine based in C++ using GLM, GLAD, GLFW, and Spdlog that implemented rigidbody dynamics with Newtonian Physics with force generators, and basic inertia tensors for simulating rotation forces
- Added support for basic bounding collider volumes(Sphere, Capsule, Box) that are used in basic collision detection algorithms as well as raycasting query algorithms
- implemented GJK for complex collision volumes and meshes and added support for BVHs(Bounding Volume Hierarchy) optimizing collision detection calculations

LINKS

Github: [@moekaz](#)

Linkedin: Mohamed Kazma

EDUCATION

CARLETON UNIVERSITY

BS in Computer Science,
GAME DEVELOPMENT
(HONS.)

Ottawa, ON

Cum. GPA: 3.5 / 4.0

Major GPA: 3.55 / 4.0

SKILLS

LANGUAGES:

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

FRAMEWORKS:

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

TECHNOLOGIES:

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

LIBRARIES:

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