HAMZA MOHAMAD

Portfolio   **LinkedIn**   **Github**

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SUMMARY

Game Developer with experience in Unity 2D, 3D & VR, object-oriented programming, optimization and debugging. Ability to learn quickly by using new tools, applications and programming languages.

EXPERIENCE

Unity VR Developer Contract   **(2022 – Present)**
VisualHawk Solutions Inc, Toronto, Canada.
Technologies: Unity 3D, C#, PC, VR, UI, Splines, Wireshark, Agile, Jira, Git
Responsibilities: Designing and building new features, Debugging, Optimization

Siege Master   (**Github**) (**Video**)   **(2022)**
Unity 3D, C#, PC, VR, Third person shooter, Tower defense
The game was built by using Top-Down based, Singleton, Strategy pattern to manage Factory pattern & object pool, Command pattern, Open Close Principle and States machine concept.

Get it & Get out   (**Github**) (**Video**)   **(2022)**
Unity 3D, C#, VR, Grappling hook
The game was made with features like destructible buildings, flocking AI and particle system.

Physics Mario   (**Github**) (**Video**)   **(2020)**
Unity 2D, C#, PC
The game was built by using my own simple math & physics engine, by using stats concept, parallax.

Tools   (**Object Placer tool**) (**Mono Cards Creator tool**)   **(2021)**
Unity Editor, C#, Scriptable objects
Created several tools for other developers.

AI Restaurant Manager   (**Github**) (**Video**)   **(2020)**
Unity 3D, C#
Created three robots using behavior trees, command communicating and agent navmesh.

Shooting Game   (**Shooting Game video**)   **(2021)**
Unreal Engine, Blueprint, First person shooter.
The game is about shooting some targets before time runs out.

EDUCATION

- **Video Game Programming Attestation of College Studies**   **(2020 – 2022)**
  L'institut Supérieur d'Informatique, Montreal, Canada.
- **Electrical and Electronics Engineering Bachelor degree**   **(2013 – 2019)**
  Higher Technological Institute, Egypt.

TECHNICAL SKILLS

- **Languages:** C#, C++, SQL, Python, Java, HTML, CSS.
- **Architectures:** Top-Down, Component based, Event based, Coroutine based.
- **Design Patterns:** Factory Pattern, Object Pools, Singletons, Strategy Pattern, Command Pattern.
- **Artificial Intelligence:** State, A*, GOAP, Behavior Tree, Flocking, BFS, DFS, Splines.
- **Management:** Agile, Agile Scrum, TDD, XP, Jira, Trello, Git.
- **Engines:** Unity 2D, 3D, VR and Unity Editor, Unreal Engine 5, OpenGL.
- **Debugging:** Breakpoints, Enforce defensive coding techniques, Unit Test.