

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.

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++, Java, SQL, Python, HTML, CSS, Blueprint.
- **Architectures:** Top-Down, Component based, Event based, Coroutine based.
- **Design Patterns:** Factory Pattern, Object Pools, Manager, Singletons, State Machines, Strategy Pattern, Command Pattern.
- **Artificial Intelligence:** Stat, A*, GOAP, Behavior Tree, Flocking, BFS, DFS.
- **Management:** Agile, Agile Scrum, TDD, XP, Jira, Git.
- **Engines:** Unity 2D, 3D, VR and Unity Editor, Unreal Engine 5, OpenGL.
- **Unity 2D, 3D, VR:** Editor scripting, Editor Variables/Menus, UI, Physics, Animation, Sound, Particle System, Render optimization, Nav Mesh, Tilemap, Materials, Lighting, Scriptable Objects.
- **Unreal Engine 5:** Blueprints, Material, CubeGrid, Lights, Lumen's global illuminations, Reflections, Fluid Simulations.
- **Collections:** Dictionaries, HashSet, ArrayLists, LinkedList, Queues, Stacks, Enumerable.
- **Concepts:** Reflection, Extension Methods, Property Groups, Attributes, Multi-threading, Partial Class code generation, Anonymous, Params, Caching, OCP Modular architecture, Decoupling.
- **Debug:** Breakpoints, Enforce defensive coding techniques, Unit Test.
- **Serialization:** XML, JSON, Binary, Text.
- **Communication & Interpersonal:** Teamwork, Active Listening, Self-Motivation, Hard Worker, Social intelligence, Leadership, Problem-solving capability, Mathematical skills, Organizational skills.

EXPERIENCE

- **Site Engineer (2020 - 2021)**
 - Riyadh Al-Etqan Company, Saudi Arabia.
 - ✓ Planning & Control: Quantity Survey, Inspection Request, Electrical Submittals and Daily Reports handling.

PRJOECTS

Siege Master ([Github](#)) ([Video](#))

Unity 3D, C#, PC, VR, Third person shooter, Tower defense

The game was built by using Top-Down based, Strategy pattern to manage Factory pattern & object pool, Command pattern, Open Close Principle and States machine concept.

Get it & Get out ([Github](#)) ([Video](#))

Unity 3D, C#, VR, Grappling hook

The game was made with features like destructible buildings, flocking AI and particle system. Also built by using Top-Down based, manager and singleton.

Physics Mario ([Github](#)) ([Video](#))

Unity 2D, C#, PC

The game was built by using a simple math & physics engine, which built by me using stats concept, parallax and some equations.

Mono Cards Creator Tool ([Mono Cards Creator video](#))

Unity Editor, C#, Scriptable objects

Created several tools for other developers.

Object Placer & Color Tool ([Object Placer video](#))

Unity Editor, C#, Scriptable objects

Created several tools for other developers.

AI Restaurant Manager ([Github](#)) ([Video](#))

Unity 3D, C#

Created three robots using behavior trees for brain, command communicating for orders and agent navmesh for movement.

Shooting Game ([Shooting Game video](#))

Unreal Engine, Blueprint, First person shooter.

The game is about shooting some targets before time runs out.