HAMZA LABIB

PORTFOLIO   **GITHUB**   **LINKEDIN**

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Professional Summary

Game Developer with experience in Game Engines, object-oriented programming, optimization and debugging. Ability to learn quickly by using new tools, applications, and programming languages. Accomplished in elevating games with new and improved strategies.

Work Experience

Gameplay Developer Contractor, Altagram Inc Group - Canada   Feb 2024 – Present

- Led the rapid prototyping of an innovative game concept, showcasing advanced Unity and C# skills to solve complex design challenges and validate gameplay ideas quickly.
- Optimized codebase for improved performance, focusing on identifying and refactoring specific bottlenecks and enhancing overall efficiency.
- Developed a system for importing and parsing text data in Unity, enabling dynamic content updates. Leveraged "System.IO" and Unity's "TextAsset" resources to facilitate data integration.
- Documented prototyping techniques and optimization strategies, aiding future development.

Quality Assurance Tester Contractor, Altagram Inc Group - Canada   June 2023 – Present

- Executed game testing, identifying, and resolving bugs to enhance game quality.
- Collaborated with team on game localization, ensuring accurate translations and cultural relevance for global markets.
- Efficiently documented and tracked bugs using tracking systems, optimizing the QA process.

Unity Developer Contractor, TEKE Inc - Canada   Feb 2023 – June 2023

- Spearheaded the development of the TEKE Bluetooth application within the Unity Editor, introducing color change functionality and playlist creation, enhancing user interaction.
- Developed UI features, such as color selection and effect saving, for improved user experience.
- Gained hands-on experience in implementing Bluetooth and Wi-Fi toggling functionalities using Unity networking, showcasing an understanding of behind-the-scenes processes.

Gameplay Developer Contractor, Visualhawk Solution Inc - Canada   Nov 2022 – Oct 2023

- Developed game systems, individual gameplay features, and player progressions using Unity engine.
- Implemented features and integral game systems including Character, Camera, and Controls.
- Conducted debugging, profiling, and performance optimization initiatives, ensuring smooth, high-performance gameplay on VR platforms.
- Collaborated closely with the team to design and deploy UI elements on schedule.
- Advanced game data management through serialization techniques with Wireshark.
- Contributed as a key part of an agile development team, planning and executing tasks to meet project milestones and deliverables.to meet project milestones.

Site Engineer, Riyadh Aletqan Co. – Saudi Arabia   December 2019 – January 2021
- Planning & Control: Quantity Survey, Inspection Request.
- Electrical Submittals and Daily Reports handling.

Youth Mentor, Hayah Academy - Egypt   September 2015 – January 2018
- Character building and strategic planning for middle school students.
- Tours and journeys preparation in Egypt.
- Organized more than 10 recreational, cultural, and educational trips.
- Member of the Primary stage committee, which carries various responsibilities, including:
  - Tutoring a group of 10 juniors on many different topics.
  - Establishing the club's objectives and setting plans for every year.

Education

Attestation of College Studies: Video Games Programming   Jan 2021 – Jan 2023
Higher Institute of Computer Science, ISI – Canada
      Coursework: Game Engines, Object-Oriented Programming, Games Mathematics, Graphics
                Libraries, 2D/3D Tools, UI Programming, Web Programming, Artificial Intelligence

Bachelor of Engineering: Electronic and Electrical Engineering   Sept 2013 – May 2019
Higher Technological Institute, HTI – Egypt
      Coursework: Algorithms and Data Structure, Object-Oriented Programming, Operating Systems

Certificates

Meta AR Developer Professional Certificate   April 2023 – present
      Coursework: Spark studio, Play Canvas WebGL, Unity, AR effects, AR games.

Skills

- Unity Engine — Expert
- Unreal Engine 5 — Intermediate
- C# & C++ — Expert
- Python & Java — Intermediate
- Web Programming — Experienced
  (HTML, CSS, JavaScript, REST APIs)
- UI/UX design in game engines — Experienced
- Software Architectures — Expert
  (Top-Down, Component, Event & Coroutine based)
- Software Design Patterns — Expert
  (Factory Pattern, Object Pools, Singletons, Strategy Pattern & Command Pattern)

- AI finding path — Proficient
  (A*, GOAP, Behavior Tree, Flocking, BFS, DFS, Splines)
- Source control & project management tools: (Git, Github and Jira) — Proficient
- Troubleshooting and problem-solving — Expert
- Deploying apps — Intermediate
  (WebGL and Spark Studio)
- OOP & SOLID principles — Expert
- Unit Testing & Integrated Testing — Expert
- Strong Team Player, Self-motivated, Communicative, & Interpersonal Skills — Expert

Projects

Siege Master (Unity3D, C#, VR, Third person shooter, Tower defense)   **(Github) (Video)**
   3D game built with a team of 3 that we made in 2 weeks using Unity, C#, inbuilt and custom-made Unity tools. Featuring Dynamic UI, 3 types of enemies including ranged and melee, 1 Boss with unique abilities, Quest Manager with both main and side quests, Melee and blocking combat.

Get it & get out (Unity3D, C#, VR, Grappling hook)   **(Github) (Video)**
   3D Platformer game built with a team of 5 that we made in a week, it made in Unity with features like Melee Combat, Grapple Hook, Time slow, and 1 fully playable level.

Physics Mario (Unity2D, C#)   **(Github) (Video)**
   My first game using unity engine, the game is the simple Mario 2D game, I created my own tools to control physics of the game, Parallax effects for camera and multiple rounds.

AI restaurant Manager (Unity 3D, C#)   **(Github) (Video)**
   An AI tool could be used for other games, I used to create three robots' behavior trees, command communicating and agent navmesh.

Tools (Unity Editor, C#, OCP)   **(Object Placer tool) (Mono Cards Creator tool)**
   My first tools for frond end developers for card games were to create cards with different designs and details, also to place objects with different shapes, colors and details in a minute.

Shoot it (Unreal engine 5, Blueprint, First person shooter)   **(Video)**
   My first game using Unreal engine which I used the blueprint to create simple first-person shooter game, the player has some targets to shoot, and he must shoot all of them before time runs out.