# Hamza Labib

Portfolio | GitHub | LinkedIn

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# **Professional Summary**

Dynamic Software Engineer with over 3 years of experience in game development, specializing in game engines, object-oriented programming, optimization, and debugging. Proven track record of quickly mastering new tools and programming languages to deliver high-quality software solutions. Adept at elevating game experiences through innovative strategies and performance enhancements.

# **Work Experience**

#### Gameplay Developer

Altagram Inc Group - Canada Feb 2024 – Present

- **Led** the rapid prototyping of an innovative game concept, leveraging advanced Unity and C# skills to solve complex design challenges and validate gameplay ideas swiftly.
- **Boosted** performance by 30% through codebase optimization, identifying and refactoring bottlenecks.
- **Engineered** a dynamic content update system, using "System.IO" and Unity's "TextAsset" resources to enable seamless data integration.
- **Authored** comprehensive documentation on prototyping techniques and optimization strategies, facilitating future development.

#### Automation Engineer

Altagram Inc Group - Canada June 2023 – June 2024

- Performed rigorous automated testing, identifying and resolving bugs to enhance game quality.
- **Collaborated** with the localization team to ensure accurate translations and cultural relevance for 5 global markets, integrating automation tools to streamline the process.
- **Streamlined** the QA process by efficiently documenting and tracking bugs using industry-standard tracking systems, implementing automation frameworks to improve testing efficiency and accuracy.

# Software Engineer

Visualhawk Solution Inc - Canada Nov 2022 – Nov 2023

- **Developed** complex game systems and individual gameplay features using Unity, contributing to a 20% increase in user engagement.
- **Implemented** key game systems including Character movement, Camera, and Controls, ensuring a smooth player experience.
- Optimized VR platform performance by 25% through debugging, profiling, and performance tuning.
- **Designed** and deployed UI elements on schedule, collaborating closely with the team to meet project deadlines.
- Enhanced game data management through advanced serialization techniques with Wireshark.
- Participated in an agile development team, planning and executing tasks to meet project milestones.

#### **Mobile Application Developer**

TEKE Inc - Canada June 2022 – Nov 2022

- **Spearheaded** the development of the TEKE Bluetooth application within the Unity Editor, introducing color change functionality and playlist creation, enhancing user interaction by 40%.
- **Developed** intuitive Canvas UI features, such as color selection and effect saving, significantly improving user experience.
- **Implemented** Bluetooth and Wi-Fi toggling functionalities, showcasing a deep understanding of Unity networking processes.

#### **Key Skills**

- Programming Languages: C#, C++, Python, SQL, Java
- Game Engines: Unity (Proficient), Unreal Engine 5 (Intermediate)
- Web Development: HTML, CSS, JavaScript, REST APIs
- Software Architectures: Top-Down, Event-Based
- Software Design Patterns: Factory Pattern, Strategy Pattern
- Tools: Git, GitHub, Jira, Wireshark
- Development Practices: OOP, SOLID principles, Unit Testing, Integrated Testing
- Data Management: Data Integration, Parsing, Serialization Techniques
- Machine Learning: TensorFlow, Al and Machine Learning (Google Cloud Certified)
- **UI/UX Design:** Game Engines, Front-End Tools, Tilemap, Unity Editor, Canvas, Shaders
- Al Technologies: NavMeshes, Pathfinding Algorithms, Al Systems.
- Networking: Bluetooth, Wi-Fi
- Deployment: WebGL, VertexAl, Spark Studio, Visual Studio, Perforce
- **Soft Skills:** Problem-Solving, Team Collaboration, Communication, Self-Motivation, Flexibility to adapt to changes in plans, thrives in a flexible and creative work environment, Result oriented

#### Certifications

- Machine Learning Engineer Professional Certificate, Google Cloud
  - TensorFlow on Google Cloud
  - Launching into Machine Learning
  - Introduction to AI and Machine Learning
- Meta AR Developer Professional Certificate, Meta
  - AR Foundation in Unity
  - o AR in Marketing using Meta Spark
  - Foundations of AR

#### **Education**

#### **Attestation of College Studies: Video Games Programming**

Higher Institute of Computer Science, ISI

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**

Higher Technological Institute, HTI

Coursework: Algorithms and Data Structure, Object-Oriented Programming, Operating Systems