# Hamza Labib

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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. Hands on experience in compilers and virtual machines. Adept at elevating game experiences through innovative strategies and performance enhancements.

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## Work Experience

### Gameplay Developer
*Altagram Inc Group - Canada*
*Feb 2024 – Oct 2024*

- **Led** the rapid prototyping of innovative game concepts, 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.
- **Gained** hands-on experience in building and maintaining game systems that align with programming language concepts.

### 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.

### Letter Carrier
*Canada Post - Canada*
*Aug 2023 – March 2024*

- **Delivered** mail and parcels along my assigned routes, ensuring that everything arrived on time and in great condition.
- **Adhered** to Canada Post's standards and policies, which helped me provide reliable service to the community.
- **Engaged** with customers, answering their questions and resolving issues with a friendly and professional approach.
- **Managed** my delivery schedules and kept accurate records, which made my routes more efficient and organized.

**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, collaborated with the team, and used CI/CD pipelines via Bamboo to streamline workflows and improve deployment efficiency.
- **Enhanced** game data management through advanced serialization techniques with Wireshark.
- **Participated** in an agile development team, planning and executing tasks to meet project milestones and applying troubleshooting skills to resolve critical issues.

**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.

**Site Engineer**
*Riyadh Al-Etqan Co. - Saudi Arabia*
*Dec 2019 – Jan 2021*

- **Handled** quantity surveys and prepared inspection requests, consistently aiming to meet high-quality standards and specifications in our projects.
- **Oversaw** electrical submittals and daily reports, ensuring effective communication among team members, consultants, and stakeholders to align project objectives.
- **Reviewed** and interpreted engineering drawings and specifications, providing valuable insights for project execution and compliance with design intent.
- **Collaborated** closely with project teams to optimize resource use, enhance project scheduling, and improve delivery timelines, making the most of our collective efforts.
- **Coordinated** with consultants to review designs and specifications, providing feedback to ensure compliance with engineering standards and client requirements.
- **Engaged** with stakeholders during project meetings, facilitating discussions to address concerns and align expectations throughout the project lifecycle.

**Youth Mentor**
*Hayah Academy - Egypt*
*Sept 2015 – Jan 2018*

- **Developed** character-building programs for middle school students, helping them grow personally and academically.
- **Organized** fun educational trips that enhanced cultural awareness and fostered teamwork among the students.
- **Contributed** to the Primary Stage Committee, helping to shape the goals and activities that benefited student development.
- **Tutored** a group of 10 juniors in various subjects, customizing my approach to meet their individual learning styles and needs.

**Key Skills**

- **Programming Languages:** C#, C++, Python, SQL, Java
- **Game Engines:** Unity (Proficient), Unreal Engine 5 (Intermediate)
- **Web Development:** HTML, CSS, JavaScript, REST APIs
- **Testing & Automation**: Automated Testing, CI/CD, Unit Testing, Test Coverage Analysis
- **Compilers & Tool Chains**: Basic knowledge of compiler design and toolchain concepts
- **Software Architectures:** Top-Down, Event-Based
- **Software Design Patterns:** Factory Pattern, Strategy Pattern
- **Tools:** Git, GitHub, Jira, Wireshark, Bamboo
- **Development Practices:** OOP, SOLID principles, Unit Testing, Integrated Testing
- **Data Management:** Data Integration, Parsing, Serialization Techniques
- **Machine Learning:** TensorFlow, AI and Machine Learning (Google Cloud Certified)
- **UI/UX Design:** Game Engines, Front-End Tools, Tilemap, Unity Editor, Canvas, Shaders
- **AI Technologies:** NavMeshes, Pathfinding Algorithms, AI Systems.
- **Deployment:** WebGL, Vertex AI, 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

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**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
  - AR in Marketing using Meta Spark
  - Foundations of AR

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**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