

# Isaac Nikouei

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## Summary

Highly skilled Senior Game Programmer with 10+ years of experience in game development. Proficient in C++, C#, and Unity. Successfully designed and developed gameplay systems, implemented Enemy behavior, and managed project branches using version control tools. Experienced in in-house game engine development.

## Skills

- Expertise in C++, C#, and Unity with 10+ years of game development experience.
- Mobile game development experience on iOS and Android using C# and Unity.
- Proficient in shader programming using HLSL and Shader Graph.
- Solid understanding of 3D math principles.
- Experience in implementing in-house game engines utilizing DirectX, Nvidia PhysX, and OpenAL.
- Experience in implementing complex character animations and AI with Unreal Engine 5.
- Proficient in version control systems including Plastic SCM and Git.
- Experience developing multiplayer back-end with the Nakama SDK.
- Proficient in consuming RESTful web APIs.
- Knowledgeable in Agile/Scrum methodologies.

## Work History

### Senior Game Programmer

08/2017 to Current

#### Hami System Sharif - Tehran, Iran

##### *Project D.E.A.R: The Merge*

- Implemented hack-and-slash gameplay with sword combat for the main character.
- Created enemy AI using Behavior Tree and developed necessary tools for designers to modify their behavior.
- Developed AR gameplay for boss fights in the game.
- Collaborated closely with designers and artists, delivering technical solutions for their requirements to ensure smooth project progression.
- Managed project branches in Git, handling merging to maintain the codebase's integrity.
- Designed the project's technical architecture and led the team of programmers in the development process.
- Trained Art team members in implementing new visual effects with Shader Graph in Unity, reducing their dependency on the development team and overcoming a major bottleneck in our workflow.
- Improved project performance to maintain a steady 60 FPS on iPhone X through optimization techniques.

##### *Hami Dream*

- Created an immersive VR experience of a breathtaking garden for mobile, utilizing Google Cardboard technology.

- Optimized performance to increase iPhone X runtime frame rate from 40 to 60 FPS.
- Boosted performance by 30% by swapping out standard PBR shaders with custom multi-layered shaders.

#### *Kashteh*

- Designed and implemented a 3D soccer free-kick mechanic for mobile devices, allowing players to control the shooting trajectory through screen swiping.
- Developed an editor in Unity for setting up a free-kick scene (including defender count, position, and moving path) that allows designers to easily save, load, and upload the setup to the server using JSON format.
- Implemented secure user authentication and session management with the server through REST APIs, ensuring a seamless and safe user experience.
- Integrated the Cafe-Bazaar and Char Khooneh SDKs, two popular local Android app stores, to create a secure and seamless in-app purchase system for users.

#### **Software Developer**

07/2017 to 08/2017

**Freelance** - Tehran, Iran

#### *Physics Experiment Simulation*

- Created 37 physics experiment simulations with high-quality visuals in Unity for a web-based project commissioned by a top-ranking university in Iran.

#### **Game Developer**

06/2016 to 07/2017

**Rain Soft Studio** - Rasht, Iran

#### *Nabard-e Abhaye Azad*

- Designed and developed a ship control mechanic for a sea-based game, enabling players to control the movement and firing of their ship's cannon.
- Implemented a floating system using Unity physics to realistically simulate objects floating on the surface of the sea, responding to waves with natural movement.
- Developed enemy ship AI using a state machine, enabling dynamic and responsive behavior during gameplay and interactions with other enemy entities.

#### **Software Developer**

12/2013 to 06/2016

**FIP-CO** - Lahijan, Iran

#### *G-Engine*

- Contributed to the development of an in-house game engine utilizing technologies like DirectX 11, Nvidia PhysX, and Open AL, implemented primarily in C++.
- Created various tools for the engine using Qt, such as level editors, material editors, and asset management tools, to streamline the development process.
- Developed a prototype car racing game using the engine and identified and resolved performance issues to improve gameplay experience.

### **Education**

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#### **Bachelor of Science**

- Computer Engineering 2013 – Jaber-Ben-Haiyan Institute of Higher Education - Rasht, Iran.

#### **Associate of Science**

- Electronics Engineering 2010 - Shahid Rajaei Teacher Training University - Lahijan, Iran.