

Isaac Nikouei

Senior Game Programmer

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Summary

Senior Game Programmer with 9+ years of experience in game development. Proficient in C++, C#, Unity, and Unreal Engine. Successfully developed gameplay systems, implemented Enemy AI, and managed project branches using version control tools. Experienced in game engine programming with a strong focus on physics and tools integration.

Skills

- Proficient in C++, C#, Unity, and Unreal Engine, demonstrating exceptional optimization skills.
- Mobile game development expertise on iOS and Android utilizing C# and Unity.
- Skilled in shader programming with HLSL and Shader Graph.
- Strong grasp of 3D math principles.
- Experience in game engine programming, emphasizing physics and editor tools.
- Implemented intricate character animations and AI using Unreal Engine 5.
- Proficient in version control systems, including Plastic SCM and Git.
- Competent in consuming RESTful web APIs.
- Familiar with Agile/Scrum methodologies.

Work History

Senior Game Programmer

06/2023 to Current

Polydin Studio – Tehran, Iran

Fractured Tenement

- Implemented FPS gameplay of the main character featuring multiple weapons.
- Developed a robust quest and dialog system and crafted a comprehensive editor for the design team.
- Actively leading a team of two programmers in prototype and development process.

Senior Game Programmer

08/2017 to 06/2023

Byteager Studio – Tehran, Iran

Project D.E.A.R: The Merge (demo version released on app-store)

- Implemented hack-and-slash gameplay featuring sword combat for the main character.
- Conceived 15 enemy AIs using Behavior Trees and crafted necessary tools for designers to modify enemy behavior.
- Created AR gameplay for boss fights within the game.
- Collaborated closely with three designers on the team, providing technical solutions for their requirements to ensure the project's smooth progression.
- Established a Quest and dialogue system, empowering designers to seamlessly integrate their creative imaginations into the game.
- Managed project branches in Git, handling merging to maintain the codebase's integrity.
- Directed the project's technical architecture and actively led a team of three programmers in the development process.

- Mentored two Art team members, helping them to implement new visual effects in Unity with Shader and VFX Graph, reducing dependency on the development team and improving workflow efficiency.
- Optimized project performance to sustain a steady 60 FPS on iPhone X through various techniques.
- Created 3 Blender extensions with Python, enabling artists to incorporate additional data into the mesh for advanced game shaders.

Hami Dream (released on app-store)

- Crafted an immersive VR experience of a breathtaking garden for mobile, utilizing Google Cardboard technology.
- Enhanced performance, increasing iPhone X runtime frame rate from 40 to 60 FPS.
- Augmented performance by 30% by replacing standard PBR shaders with custom multi-layered shaders.

Kashteh (released on local store, Cafe-Bazaar)

- 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.

Engine Programmer

01/2015 to 08/2017

FIP CO – Lahijan, Iran

G-Engine (in-house Game Engine)

- Responsible for integrating Nvidia PhysX into the engine's core.
- Developed various tools for the engine's editor using Qt, including asset importers, material, and component editor, to streamline the development process.
- Crafted a car racing game using the engine, identified, and resolved performance issues to improve the gameplay experience.

Game Programmer

12/2013 to 01/2015

Rain Soft Studio – Rasht, Iran

Nabard-e Abhaye Azad (released on local store - Cafe Bazaar)

- 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 responsive behavior during gameplay and interactions with other enemy entities.

Education

Bachelor of Science - dropped out

2013

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

Associate of Science

2010

- Electronics Engineering - Rajae Teacher Training University - Lahijan, Iran.