

Sai Upadhyayula

Gameplay Programmer



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Skills

Languages: C++, C#, SQL, Assembly, Lua, JavaScript

Tools: Unreal Engine, Unity, Visual Studio, Git, Perforce

Technologies: DirectX 11, XAudio2, Windows API.

Education

Masters in Entertainment Arts and Engineering - Game Engineering.
University Of Utah | 2019

Bachelors in Electronics and Communication Engineering
GITAM University, India | 2015

Projects

Meaty McSkinBones - Gameplay and UI Programmer </> Unreal, PC

- Developed gameplay features and interactions between characters with Unreal.
- Designed and programmed custom UI elements to be used as part of the design pipeline.
- Designed a user facing bug reporter in C++ with a front end in C# and WPF to analyze submitted bugs.

Samurai Crusader - Gameplay and UI Programmer </> Unreal, Android, PC

- Built a weapon progression system for over 20 weapons with C++ and Blueprints.
- Developed player combat system and three different AI using decision trees.
- Managed certification, deployment, and support in Play Store with several hundred downloads.

Game Engine </> Windows, DirectX11, XAudio2

- Created a platform agnostic multi-threaded game engine in C++.
- Designed a memory manager for low latency operations with support for both block and fixed size allocators.
- Collaborated on a 3D render pipeline with support for DirectX 11 and OpenGL.
- Implemented interfaces for HIDs with RawInput and XInput.
- Optimized the performance using low level technologies including SSE and AVX.

Work Experience

Gameplay and UI Programmer

Triplot Games 🏢 Aug 2018 – Present

📍 Salt Lake City, UT

- Created fun and engaging gameplay features, abilities, and User Interface with C++ and Unreal.
- Headed a team in conceptualizing an analytics platform utilizing SQL Server to measure user metrics and tie into third party analytics services.
- Worked closely with artists and designers in implementing the necessary features in the development process.

Systems Engineer

Tata Consultancy Services 🏢 Jul 2015 – Jul 2017

📍 Hyderabad, India

- Wrote efficient middleware pipeline for an ETL project handling millions of transactions leveraging Oracle, OSB, and Informatica.
- Ensured on-time delivery of bug free code with rigorous unit testing using REST and SOAP UI.
- Led construction of a user facing website with C# and ASP.Net and backend with SQL Server.

Gameplay Programmer

Genetic Science Learnig Center 🏢 Jan 2018 – Present

📍 Salt Lake City, UT

- Responsible for developing engrossing learning content to teach genetics using Unity and C#.
- Devised and implemented interactive game controls.
- Wrote multiple shaders utilizing ShaderLab and HLSL to simulate cell behavior.