Phani **Srikar**

ENGINE DEVELOPER · GRAPHICS PROGRAMMER

Bangalore, India

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"Pixels....Ummm.... I eat tasty pixels for Breakfast, Lunch and Dinner."

Skills

Programming Languages	C, C++, Lua, C#, GLSL, HLSL, PSSL2
Consoles	PS5, PSVR 2
Graphics APIs	AGC (PS5), OpenGL, Vulkan, DirectX 12
Other APIs	QT
Tools	Visual Studio, RenderDoc, NSight, Blender, Razor, XCode
Game Engines	Unity, Unreal, Phyre Engine, Godot

Work Experience

Graphics Programmer   *California, United States (Remote)*

THE FORGE INTERACTIVE, INC.   *June. 2024 - Present*

- Working on The-Forge rendering engine enhancements

Graphics Programmer   *Bangalore, India*

SONY INDIA SOFTWARE CENTER   *Sep. 2021 - June. 2024*

- Project - SIE (PS5 SDKQA-Graphics team)
- Researching rendering techniques for PS5
- Developing an internal game engine for PS5 and PC for SARD, Sony India
- Developed a Game Automation Framework for Engine using Imitation Learning
- Ported Sony centre metaverse to PS5 and PSVR2
- Reproduced graphics related papers for R&D teams

Computer Graphics Engineering Intern   *Bangalore, India*

VIGA ENTERTAINMENT TECHNOLOGY   *Feb. 2021 - Apr. 2021*

- Implemented IMU based motion capture pipeline from scratch and development of proprietary motion solving algorithms
- Implemented Research practices in motion capture to production pipeline
- Designed a QT - Vulkan application for visualisation of the 3D motion capture data + plugin for Unreal engine
- Contributed to understanding of IMU sensor data and improvement of sensors workflow

Projects

Razix Engine   *https://github.com/Pikachuxxxx/Razix*

HIGH PERFORMANCE RESEARCH ENGINE FOR PRODUCTION PIPELINE

- Cross-Platform 2D and 3D engine with multi render API support (GL, VK).
- FrameGraph based on EA's frostbite engine and Bindless materials
- Jolt physics engine and lua based scripting
- Global Illumination using Light Propagation Volumes
- Editor and Tools built using QT
- Custom memory, STL and mesh formats for fast mesh loading using job system

Fireworks Engine

LIGHTWEIGHT SANDBOX GAME ENGINE USING OPENGL FOR ADDITIONAL CUSTOMISATION AND QUICK PROTOTYPING

- Created a complete 2D and 3D rendering pipeline from scratch using OpenGL as the backend API
- Created a simple and clearly documented Engine and Scripting API for faster development and customisation
- Added support for 2D and 3D Audio with an extensive API using OpenAL
- Designed a component system for rigidbody, transform and supports up to 20 components with a simple Interface to extend to new components
- Implemented a simple material system that leverages both the forward and deferred rendering pipelines
- Implemented 2D sprite animation and 2D Physics (Box2D). Also supports true type font rendering
- Implemented 3D skeletal animation and primitive 3D physics algorithms and responsive camera system
- Designed Highly optimised Batch Renderers for 2D and 3D primitives as well as 3D models for static and dynamic meshes

Presentations

STEF'22 - Sony technology Exchange Fair   *Tokyo, Japan*
PRESENTER FOR AUTOMATING FAST GAMEPLAY TESTING USING IMITATION LEARNING   *Dec. 2022*

- Presented demos on how the system can be used with various engines/games to automate gameplay
- Participated in Q/A and discussion sessions

Open Source Contributions

Bosca Ceoil

BOSCA CEOIL IS A FREE, EASY TO USE TOOL FOR CREATING MUSIC!

- Maintainer of Bosca Ceoil for MacOS system
- Played a crucial role in extending the life and support of the software

Education

Sreenidhi Institute of Science and Technology   *Telangana, India*
B.TECH IN ELECTRONICS AND COMMUNICATION ENGINEERING   *Aug. 2017 - July. 2021*

Narayana Junior College   *Telangana, India*
CLASS XII   *Aug. 2015 - Aug. 2017*

Hobbies

- Gaming
- **Speedcuber** - can solve a wide range of puzzle before you say brrr.
- Badmition
- Amateur Guiarist
- Homebrew Development