Aseem Apastamb

Software Engineer

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Skills:

• Languages: C++, C#, Lua, C, Java, Python

• Other Software: Unity, Unreal

Projects:

Academic

SIK Engine Aug '22 – Dec '22

- A 3D game engine built using C++ and OpenGL.
- Worked on resource loading and a reflection system for serialization.
- Integrated a scripting system for various gameplay systems and behaviours.
- Team-based project developed using an agile model.

Lights Out Jan '22 – Apr '22

- A 2D puzzle platformer game developed in C++, using an ECS based game engine.
- Contributed to the physics engine, gameplay systems, and level design.
- Learnt the basics of an Entity-Component-System architecture pattern.
 - Experienced team-based project development, including practices like source control.

3D Animation Framework

Aug '22 – Dec '22

- A C++ framework to load complex 3D models and animations.
- Supports multiple model formats e.g., Collada, and multiple animations.
- Built a quaternion library for use in bone transformations.

Facial Expression Recognition

2020

- Architected various deep learning models using convolutional neural networks to classify 7 different expressions on human faces and incorporated multiple public datasets to train models.
- Enhanced the project to work on static images and live video, with the results overlayed around subject's face to display the emotion.

Personal

Box Shooter Jan '21

- A 3D first-person shooter built in Unity, where the player gains points by shooting objects in the environment.
- Demonstrated player input, interactive UI, some basic scripting, and 2 different levels.

Roller Madness Dec '20

- A 3D third-person game created in Unity, where the player controls a ball, collects coins, and avoids enemies.
- Showcased user input, basic physics-based movement, and enemy behaviour.

Publication Jun '21

A research paper on data analysis and machine learning called *Investigating the Impact of Data Analysis and Classification on Parametric and Non-Parametric Machine Learning Techniques: A Proof of Concept* - published for Springer's 3rd ICCNCT 2020.

Education:

Master of Science in Computer Science

Expected Graduation Apr '23

DigiPen Institute of Technology

Bachelor of Engineering in Computer Engineering

Graduated Nov. '20

Maharashtra Institute of Technology, Pune (Savitribai Phule Pune University)