AKSHAT AGRAWAL

Game Developer

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Portfolio LinkedIn GitHub

SUMMARY

Seeking a Game Programmer role, leveraging a recent M.Sc. in Computer Games Technology and a strong foundation in mathematics. Innovated in gamification during a stint as a Game Researcher, focusing on user engagement and well-being. Skilled in research, development, and documentation, ready to contribute to creative gaming solutions. Proficient in C++, C#, Javascript, and Python, with hands-on experience in Unity and Unreal Engine.

SKILLS

- **Game engines:** Unity, Unreal, and Raylib
- **Programming languages:** C++, C#, Python, HTML, Javascript, HLSL and GLSL(shader)
- **3D Graphics:** Directx11 and OpenGL
- **Physics/Math programming:** Good with 2D and 3D mathematics and physics simulations.
- **3D Simulation**: Made a simulation of a tennis ball acting under the influence of drag and spin forces for my Master's project.
- **Networking:** Knowledge of UDP/TCP sockets, Pun Networking, Pyglet, and Pygame

PROFESSIONAL EXPERIENCE

Game programmer

Fireslug Studos April 2024 - Present

Designing and implementing AI system in the upcoming RPG game Ashborn.

Game research internship

Uppertunity July 2023- Aug 2023

Conducted comprehensive research and contributed to the development of an innovative application idea, designed to enhance volunteer engagement and well-being monitoring.

EDUCATION

M.Sc. Computer Games Technology

Abertay University, UK Sept 2022 – Sept 2023

Thesis title: Magnus Effect in Sports

Integrated B.Sc. and M.Sc. Mathematics

Homi Bhabha National Institute, India Aug 2016 – May 2021

Thesis title: Voronoi game in graph theory

PROJECTS

Note: A preview of the projects is available at my portfolio website here.

Procedural generation beach

- DIrectx11 3D beach with procedurally generated mountain and waves in the ocean
- Post-processing effects: Gaussian Blur, Swirling effect

AI for Flappy bird game

- Made a difficult version of the Flappy Bird game (pipes also move vertically) in the Unity game engine and trained the AI bot to play the game
- The average performance of AI was approximately 10 times better than the average human performance