

AKSHAT AGRAWAL

Game Developer

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SUMMARY

Aspiring game Developer with a background in Mathematics and computer science. Interested in gameplay mechanics and programming. My professional skills such as C++, Python, and C# are backed by solid interpersonal skills to ensure my fast adaptation in any environment.

EXPERIENCE

Game researcher

Uppertunity

July 2023- Aug 2023

Dundee, UK

Uppertunity is a non-profit company, working for the betterment of the community.

- Gamification of the well-being monitoring tool for volunteers
- Researched and developed the idea of an engaging app
- Included features like social wall and health nudge
- Created a documentation for implementation of this idea

Teaching

Chegg Inc. and Course Hero

2021-2022

Chegg and Course Hero are educational support companies. They help students through online tutoring.

- Online freelancing work.
- Explaining maths, statistics and programming questions to students.

EDUCATION

M.Sc. Computer Games Technology

Abertay University, Dundee, UK

Sept 2022 – Sept 2023

Thesis title: Magnus Effect in Sports

M.Sc. Mathematics

National Institute of Science Education and Research (NISER), Bhubaneswar, India

Aug 2019 – May 2021

Thesis title: Communication Complexity of Private Simultaneous Messages

B.Sc. Mathematics

National Institute of Science Education and Research (NISER), Bhubaneswar, India

Aug 2016 – Aug 2019

SKILLS

C++

C#

Python

Matlab

Directx11

Unity

Unreal

Game development

Visual Studio

Latex

ACHEIVEMENTS



Fast Learner

Learned Unity and Unreal engine during the master's coursework. During this time I also made a scene in Directx11 3D. Also made a small multiplayer game in Python in a week.



Team Player

Made a multiplayer game with a small group of undergraduate students. Learned to work with artists and designers as the sole programmer in the project. Teamwork made a huge difference!

STRENGTHS



Interpersonal skills

Listen attentively, speak candidly, and treat everyone with respect.



Eye for Detail

With a background in research and two master's degrees, focusing on details comes naturally. I am good at focusing on small but important things since I don't rush things.



Hard-working

Focus on the key goals, and work until I achieve them.

LANGUAGES

English



Hindi



PROJECTS

Abertay University

Magnus Effect in Sports

📅 June 2023- Sept 2023

- Master's project
 - A realistic **3D simulation** of the Magnus effect in tennis
 - Magnus effect is responsible for the curving of the ball due to its spin
 - Made in Unity game engine
 - UI implemetation and design
 - Model is easy to implement in any sports game
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Multiplayer FPS game

📅 Feb 2023- May 2023

- Student project with 5 team members, 1 programmer
 - I was the lead programmer
 - Built a small **multiplayer 3D first-person shooter game** in Unity game engine
 - Implemented PUN networking
 - Ranged combat
 - Custom finite state machine for enemies
 - Led a small team of undergraduate students
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Procedural generation beach

📅 Feb 2023- May 2023

- Coursework on computer graphics
 - Directx 11 renderer
 - 3D beach with procedurally generated waves in ocean
 - Procedurally generated mountains
 - Post processing effects: Guassian Blur, Swirling effect
 - input handling for keyboard
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AI for Flappy bird game

📅 Sep 2023- Dec 2023

- Coursework on AI techniques for games
 - Made a difficult version of the Flappy Bird game (pipes also move vertically) and trained the AI bot to play the game
 - Made in Unity game engine
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NISER

Voronoi game in a tree

📅 Aug 2019- April 2020

- Master's project in theoretical computer science involving graph theory
- Voronoi game is a competitive facility location problem
- Relevant in the study of Game theory and algorithms