Abhigyan Gandhi

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LinkedIn | Portfolio

EDUCATION

UNIVERSITY OF LEEDS
MSc. High-Performance Graphics and Games Engineering
September 2025 | Leeds, UK

BITS PILANI DUBAI CAMPUS
B.E. (Hons.), Computer Science
Minor: Data Science
September 2022 | Dubai, UAE
CGPA: 8.72 (First Division)

SKILLS

C++ ● C# ● HP GPU Programming ● Python ● MATLAB ● JavaScript ● OpenGL ● Vulkan ● GLSL ● HLSL ● Unity ● Physics Simulation ● Game Engine Architecture ● HTML ● NodeJS ● MySQL ● Git ● Linux ● Scikit-Learn ● Pandas ● TensorFlow ● PyTorch ● Computer Vision ● CNN Models ● Prediction Models

EXPERIENCE

Stella Stays | Software Engineering AI/ML Intern

Aug 2021 - Jan 2022 | Dubai, UAE
Worked with the tech team on multiple machine learning projects: Predictive pricing model, sentiment analysis of hotel reviews, dynamic room allocation algorithm.

Sentient Labs | Student Intern

Jun 2020 - Aug 2020 | Dubai, UAE
Collaborated with the team to develop a 2D game for the company's website using Unity.

COURSEWORK

- Complete **game engine development** from scratch and a game using the game engine (group project), my main work was to handle physics for the engine and audio integration. Implemented our own ECS system using C++ and Vulkan for rendering. Won the **Game Republic Red Kite Games Game Technology Award at the Student Showcase 2025**
- Implementing mathematics through OpenGL and C++ to draw Bezier Curves and Patches.
- CPU-based ray tracing using OpenGL and GPU-based rasterization with VULKAN.
- Animation cycles for a character and physics for a set of bouncing dodecahedra with collision detection using OpenGL and C++.
- MSc final project: **Implementation of a ray tracing denoiser in NVIDIA NRD's sample app** to compare it with their own denoisers *REBLUR* and *RELAX*. (Ongoing)

PROJECTS

- Developing my own game - **LETTER SHIFT**, a daily puzzle game for mobile and web - Unity 2D, C#. (Ongoing)
- B.E. final project: **Mobile Robot Path Planning** Using Deep Learning Techniques - Robotics, Deep Learning, Neural networks.
- Analysis and Development of an Algorithm for Generating a Board for Catan - DAA.
- Generating art like Claude Monet using Generative Adversarial Networks - GANs.
- Discord bot using discord.js - Node.js module.
- Classification of the Iris dataset - ML Classification algorithms.

CERTIFICATIONS

- Unity Certified Associate Game Developer UI and 2D Games
- Foundations of Business Intelligence – Google
- Data Engineering Essentials using SQL, Python and PySpark
- Microsoft Azure Machine Learning