

Abhigyan Gandhi

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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 • Computer Vision • CNN Models • Prediction Models • Teamwork • Effective Communication • Accountability • Organizational Skills

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)
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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.
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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 3 colleagues to develop a 2D game for the company's website using Unity.

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
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