

Abhigyan Gandhi

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SUMMARY

Currently pursuing MSc. High-Performance Graphics and Games Engineering at the University of Leeds. Proficient in C++, C#, Python, GPU/HPC, Unity, Unreal, Graphics APIs (OpenGL and Vulkan), Game Engine Architecture and Physics Simulations. Seeking roles in graphics/game programming and data science positions. **Have the right to work in the UK.**

EDUCATION

MSc. High-Performance Graphics and Games Engineering | University of Leeds | Sept 2024 - Sept 2025

- **Modules:** Foundation of Computer Graphics, Advanced Rendering, Modelling and Animation.
- **Dissertation:** Comparison of Real-Time Denoisers with NVIDIA NRD.

B.E. (Hons) Computer Science, Data Science, CGPA: 8.72 | BITS PILANI DUBAI CAMPUS | Sept 2018 - Sept 2022

- **Modules:** Machine Learning, Data Mining, Foundations of Data Science, Neural Networks.
- **Final Year Design Project:** Mobile Robot Path Planning using Deep Learning Techniques.

PROJECTS

- Complete game engine development and a game from that engine. Won the **Game Republic Red Kite Games Game Technology Award at the [Student Showcase 2025](#)** - C++, Vulkan | May 2025.
- Developing own game - **LETTER SHIFT**, a daily puzzle game for mobile and web - Unity 2D, C# | Ongoing.
- CPU-based **ray tracing** and GPU-based **rasterization** - C++, OpenGL, Vulkan | Nov 2024.
- Implementing mathematics to draw Bezier Curves and Patches - C++, OpenGL | Oct 2024.
- Animation cycles for a character and physics for a set of bouncing dodecahedra with collision detection - C++, OpenGL | Nov 2024.
- Generating art like Claude Monet using **Generative Adversarial Networks** - Python, GANs | Dec 2020.
- Analysis and Development of an Algorithm for Generating a Board for Catan - DAA | Apr 2021.
- Discord bot using discord.js - Node.js module | May 2021.

WORK EXPERIENCE

AI/ML Intern | Stella Stays | Aug 2021 - Jan 2022

- Implemented predictive pricing model using **LSTM** and **regression**, improving base price accuracy to **10% MAPE** versus market price.
- Built a NLTK-based sentiment analysis pipeline for hotel reviews, achieving **80% accuracy**.
- Developed a room allocation algorithm based on **minimum slack** and **clustering**; led to a **+10% optimized** allocation method.

Game Development Intern | Sentient Labs | Jun 2020 - Aug 2020

- Developed a 2D game in **Unity** for the company's website; lifted user engagement by **25%**.

SKILLS

- **Programming Languages:** C++, C#, GLSL, HLSL, Python, SQL, HTML, JavaScript.
- **Graphics and Game Development:** Vulkan, OpenGL, Unity 2D/3D, Unreal Engine, Physics Simulation, Game Engine Architecture, HP GPU Programming.
- **AI/Machine Learning:** TensorFlow, Scikit-Learn, Pandas, CNNs, GANs.
- **Tools and Platforms:** Git, Linux, Node.js, Matplotlib, MATLAB.
- **Languages:** English, Hindi.

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.