Demo Reel



Skills

- → Unity Generalist
- → Tools Programming
- → 3D Math, Algebra, Calculus
- → Technical UI Creation
- → Version Control
- → Optimization, Profiling
- → Material & Shader Creation
- → Particle Systems & VFX
- → Generative AI APIs
- → Technical Documentation
- → Video Editing
- → Understanding of 3D, Animation & Rendering Pipeline

Tools & Languages

- → Unity, C#, HLSL
- → Python, PyMEL, PyQT
- → Adobe XD
- → Unreal Engine
- → Git, GitHub, Perforce
- → Maya
- → Substance Designer
- → NVIDIA Omniverse
- → Adobe Photoshop
- → Adobe Premiere Pro

Achievements

- → **SGI Fellow** at MIT Computer Science and Artificial Intelligence Laboratory.
- → Recipient of the Gold Medal for Outstanding Innovation at IIT Gandhinagar.
- → Recipient of the Director Fellowship Award at FIEA.
- → 1 of 100 students selected for Chennai Mathematical Institute in 2019.
- → Ranked #2 Nationally, Indian Commerce Olympiad (Maths, Aptitude).
- → Top 0.4 percentile in JEE Mains & 0.3 percentile in JEE Advanced.
- → Ranked #22, out of 10k+ participants, Brackeys Game Jam 2021.1.
- → Ranked #1, Jamboost Game Jam out of 300+ participants, won \$1000.
- → Received **Silver Medal** at Inter IIT Tech Meet for IGDC Gamedev Challenge
- → Developed games downloaded over
 521K+ and played 2M+ times.

Aniket Rajnish



Experience

Technical Artist & Project Lead, Lockheed Martin

(Jan 2024 - Ongoing)

[FIEA Coursework Contract Project for Lockheed Martin]

 Working on a VR experience that demonstrates the advantages of JADO and has a 3D Asset Gallery that can be easily edited after development.

Technical Artist, Dragonfly Games

(Nov 2023 - Ongoing)

[FIEA Coursework Capstone Project for a student run studio]

- Developed post effects and VFX for the game contributing to its comical look.
- Responsible for all the tool development for the team, automating many tasks.
- Developed an optimized curly hair solution for UE5, reduced its performance overhead by 64x. A document about all my contributions can be found here.

Technical Art & Design Intern, 19 Souls on Board

(May 2022 - July 2022)

 Worked as a remote contractor, provided assistance in shader & gameplay programming, and VFX. Logs about my contribution that can be found here.

Third Party Developer, CrazyLabs

(Aug 2021 - Mar 2022)

 Partnered as a game studio, and led a team of four, resulting in development of 6 prototypes, 30 concept pitches and a market-ready game (unannounced).

Secretary, Game Dev Club, IIT Gandhinagar

(Aug 2020 - Apr 2021)

[IIT Gandhinagar Technical Council POR]

- Guided 100+ game developers about Unity & basics of game development establishing connection with Kwalee, Homa Games & Crazylabs.
- Successfully organized <u>GameJam 2020 AD</u>, the third largest Indian game jam on itch.io at the time, with 600+ people submitting 90+ games.

Personal Projects

Collider Optimizer for Unity [300+ stars on Github] [80.lv Article]

- Developed a tool that optimizes Mesh and Polygon Colliders in Unity.
- A C# implementation of the Ramer Douglas Peucker Algorithm is used to smooth polylines and reduce number of paths created by Polygon Colliders.
- A C# implementation of the Quadric Error Metric simplification is used on the shared mesh of the Mesh Collider to reduce its poly count.

Text to Material for Unity

- Developed a plugin for Unity that generates materials from text prompts in Unity.
- Sets material properties, generates base & normal maps using OpenAl API calls.
- Implemented algorithm to parse material properties from natural language input.

PyQt Multi-Window Sync [300+ stars on Github] [100k+ views on YouTube]

 Developed a windows GUI application using PyQt5 and qtSignal that demonstrates real-time synchronization between multiple window instances.

C# Implementation of a 4D Raymarching Engine

 Developed a raymarcher that helps render 4D objects and take control of their 4D & 3D transformations. Implemented algorithms for lighting, AO and shadow calculation, compute-buffers, raymarching signed-distance functions, a shader math library for C#, a custom editor to control shape dimensions through editor.

Maya Auto Rigger [Work in Progress]

 A work in progress Auto Rigger that contains functionality for IK/FK switching & snapping, space switching, stretchy joints, wrist roll and reverse foot IK.

Two Opposites (Ranked #22 internationally, Brackeys Game Jam)

• Formulated and developed a **2D Lighting System** in C# for Unity using ray casting, and Unity started official support for it in a later update.

Education

2019 - 23 | IIT GANDHINAGAR | B.Tech, Mechanical Engineering, Design Minor 2023 - 24 | FIEA, University of Central Florida | MS, Technical Art Track