demo reel.

tools & lang.

Unity, C#, Python, PyMEL, PyQT, Premiere Pro, Unreal Engine, Adobe XD, Houdini, Photoshop, HLSL, OpenGL, Maya

tech 50%

art 50%

creativity 5050%

achievements.

- Recipient of the **Gold Medal for Outstanding Innovation** at IIT Gandhinagar.
- Recipient of the **Director Fellowship Award** at FIEA.
- **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 447K+** and **played 2M+ times.**
- **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.

Aniket Rajnish

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Portfolio Website

education.

2019 - 23 | IIT GANDHINAGAR | Mechanical Engineering, Design Minor | **8.41/10**
2023 - 24 | FIEA, University of Central Florida | Technical Art Major | **Ongoing**

work experience.

Studio Head Contractor, CrazyLabs (Aug 2021 - Mar 2022)

- Partnered as a game studio, and led a team of 4, resulting in development of 6 prototypes, 30 concept pitches & 1 market-ready Hyper Casual game.

Technical Art & Design Intern, FIEA (May 2022 - July 2022)

- Provided assistance in shader & gameplay programming, and the development of particle & VFX systems. Curated development logs and documentation about my contribution that can be found here.

Secretary, Game Dev Club, IIT Gandhinagar (Aug 2020 - Apr 2021)

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

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 OpenAI API calls.
- Implemented algorithm to parse material properties from natural language input.
- Developed an Editor Window for Unity to take prompts and settings from user.

Multi-Window Synchronization for Windows GUI

- 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. It also supports lighting, AO and shadow information.
- Implemented compute-buffers, raymarching signed-distance functions, built a custom interface for manipulating shader parameters through the editor.

Spiderverse-inspired Post Processing

- Developed Spiderverse-inspired post-processing for Unreal Engine and Unity.
- In Unreal Engine it's done using a custom post processing material that takes specular and shadow information from the scene as texture maps and overlays them with benday dots and hatching lines respectively.
- In Unity we write a custom renderer feature for URP, reverse engineer the default bloom image effect shader using shader graph, replacing it with benday dots.

3D Shapes Dataset Generator

- Developed a GPU-accelerated tool that helps create procedurally generated raymarched 3D shape datasets consisting of 17 primitives & 3 operations.
- Users can precisely control the orientation and position of each shape, as well as the overall quality and size of each dataset.

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

- Formulated and developed a 2D Lighting System in C# for Unity using raycasts and Unity started official support for it in a later update.
- Programmed every mechanic of the game which included, but not limited to mirror movement, multiple camera setup, etc.