## **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
- → Adobe Photoshop
- → Adobe Premiere Pro

# **Achievements**

- → Summer Geometry Initiative 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, 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 <a href="here">here</a>.

## **Technical Artist & Project Lead, Lockheed Martin**

(Jan 2024 - April 2024)

[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.

#### Third Party Developer, CrazyLabs

(Aug 2021 - Aug 2022)

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

## 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 <a href="here">here</a>.

### 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.

#### **Constructive Solid Geometry Dataset Generator**

 Developed a GPU-accelerated tool that helps create procedurally generated raymarched 3D shape datasets consisting of 17 primitives & 3 operations allowing control over transformations of primitives, quality and size of dataset.

#### 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.

#### C# Implementation of a 4D Raymarching Engine

 A raymarcher that helps render 4D objects. Implemented algorithms for lighting, AO and shadow calculation, compute-buffers, raymarching signed-distance functions, a shader math library for C# and a custom editor window.

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

 Formulated and developed a <u>2D Lighting System</u> 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