Aniket Rajnish
Technical Artist

✉ **makra@ucf.edu**
🌐 **aniketrajnish.github.io**
in **linkedin.com/in/makra2077**

Demo Reel

Skills

➜ Unity Generalist
➜ Tools Programming
➜ 3D Math, Algebra, Calculus
➜ Technical UI Creation
➜ Version Control
➜ Optimization
➜ 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
➜ Photoshop
➜ Adobe Premiere Pro

Achievements

➜ 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.**

Experience

Technical Artist & Project Lead, Lockheed Martin **(Jan 2024 - Ongoing)**
FIEA Gamelab 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 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, FIEA **(May 2022 - July 2022)**
● Worked as a remote contractor, provided assistance in shader & gameplay programming, and VFX. Curated development logs and documentation 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 **GameJam 2020 AD**, 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 OpenAI API calls.
● Implemented algorithm to parse material properties from natural language input.

Multi-Window Synchronization for Windows GUI [300+ stars on Github]
● 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.

3D Shapes Dataset Generator
● Developed a GPU-accelerated tool that helps create procedurally generated raymarched 3D shape datasets consisting of 17 primitives & 3 operations.

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.

Education

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