





## achievements.

- 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

### 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

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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 [250+ 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.

#### C# Implementation of a Raymarching Engine.

- Developed a fast raymarcher for Unity with support for 28 primitives (including fractals, n-dimensional objects, volumetric clouds).
- Implemented compute-buffers, raymarching signed-distance functions, built a custom interface for manipulating shader parameters through the editor.

#### 3D Shapes Dataset Generator

- Developed a GPU-accelerated tool that helps users create procedurally generated 3D shape datasets customized to their needs.
- Supports 17 primitives, 3 operations and the ability to control orientation, position and count of each primitive and quality/size of each dataset.
- The shapes are raymarched to increase the performance to the tool.

### games.

#### Soul Shard (FIEA, University of Central Florida) published on Steam

- Developed a dynamic footprint system for main characters and VFX effects such as stylized fire, smoke, debris, and flames.
- Created a dynamic snowstorm system and implemented rope physics for cables, as well as a dynamic loading screen for various scene transitions.

#### 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.

#### Faster Than Light (PC) (#3 in Popularity, Brackeys Game Jam 2020.2)

- Engineered all mechanics, enemy AI, as well as the lighting and shaders.
- Developed player physics in 48 hours, allowing for timescale-independent movement in space, timescale manipulation, & bullet-time mechanics.

#### Faster Than Light (Hyper Casual) (Won Jamboost Game Jam & 1000\$)

- Engineered all mechanics and enemy Al in the game, lighting and shaders.
- Optimized time control mechanics and real-time indoor lighting for mobile platforms, and made these open source with a public repository available