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

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Education

2023 - 25 | FIEA, University of Central Florida | MS, Technical Art Track
2019 - 23 | IIT Gandhinagar | B.Tech, Mechanical Engineering, Design Minor

Experience

Technical Artist, Amazon Robotics **(Ongoing)**
● Establishing Omniverse pipelines & creating digital twin of Amazon's warehouses and their upcoming robot. This pipelines ensures efficiency in training the robots.
● Supporting Synthetic Data generation by establishing a pipeline for creation of randomized 3D USD data of humans with varied poses, clothes, props & features.

SGI Research Intern, CSAIL Lab, MIT **(July 2024 - August 2024)**
● Worked on establishing efficient robot designs for Lightspeed Studios, using Simulated Annealing, Genetic Algorithms & MCTS. **[Repository]**
● Working on a state of the art algorithm to extract explicit representation (mesh information) from implicit representations like SDFs by using VDFs to address the issues with existing algorithms. **[Repository] [Blog]**

Technical Artist, Dragonfly Games **(Nov 2023 - July 2024)**
[FIEA Coursework Capstone Project for a student run studio]
● Developed post effects and VFX for the game contributing to its comical look.
● Responsible for establishing PBR workflow, implemented material functions to assign fine & parental controls over overall look of the environments developed.
● Responsible for all the tool development for the team, automating many tasks.
● Developed an optimized curly hair solution, reduced the draw calls by 64x. **[Blog]**

Technical Artist & Project Lead, Lockheed Martin **(Jan 2024 - April 2024)**
[FIEA Coursework Contract Project for Lockheed Martin]
● Led a team of 8 to develop a VR experience that demonstrates the JADO system and has a modular 3D asset gallery with a conversational AI companion.

Third Party Developer, CrazyLabs **(Aug 2021 - Aug 2022)**
● Contracted as a third-party game studio, and led a team of four, resulting in development of **6 prototypes**, **30 concept pitches** and an unannounced title.
● Demonstrated a keen eye on time and performance constraints that go along with hypercasual prototype development along reaching a CPI as low as 0.28$.

Technical Art & Design Contractor, 19 Souls on Board **(May 2022 - July 2022)**
● Worked as a remote contractor, provided assistance in shader & gameplay programming, and VFX. **[Blog]**

Solo-Developed Tools/Pipeline

Collider Optimizer for Unity [300+ stars on Github] [80.lv Article]
● Developed a tool that optimizes Unity's Colliders, it decreased performance overhead of real-time destruction by 2 folds in a course group project.
● A C# implementation of the Ramer Douglas Peucker Algorithm and Quadric Error Metric simplification is used to smooth polylines and reduce number of paths created by Polygon Colliders and reduce the poly count of mesh collider.

Text to Material for Unity
● Developed a pipeline to generate materials from text prompts for a course group project to prototype materials quickly for placeholder assets & greyboxing.
● Sets material properties, generates base & normal maps using OpenAI 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 creates procedurally raymarched 3D shape data sets and provides fine control over their transformations and quality.
● This tool automated the shape dataset generation pipeline for our CSE lab.

Maya Auto Rigger [Work in Progress]
● Developed to automate biped rig development for our capstone project.
● Implemented functionality for IK/FK switching & snapping, space switching, stretchy joints, wrist roll and reverse foot IK based the artists requirements.