

# SIDDHARTH SHANKAR

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## EXPERIENCE

- Deep Learning Titans** Remote  
Game Development Intern Apr 2025 – Jul 2025
  - Contributed to project AIKO, implementing two 3D fetch-based mini-games using mathematical interpolation for motion paths.
  - Applied optimization techniques (complexity reduction, memory profiling) to improve runtime efficiency of 3D assets and mechanics.
  - Collaborated with developers to integrate AI-driven behaviors using probabilistic decision trees and vector math for pathing.
- Project Exhibition** Bhopal, MP  
Team Lead 2023 – 2024
  - Directed development of a single-player horror game in Unreal Engine 5, applying systems design principles for scalable gameplay.
  - Scheduled tasks with critical path method (CPM) and managed resource allocation under strict 1-week deadline.
  - Optimized workload by mapping team skills to task complexity.
- Bashcraft Club** Bhopal, MP  
UI/UX Designer Aug 2023 – Aug 2024
  - Produced promotional materials using vector-based layout math, increasing engagement by 60%.
  - Formulated visual branding systems with modular design rules for events and digital campaigns.

## PROJECTS

- The Biscuit Will Make You Risk It | Action Shooter, Unreal Engine 5 [Download]** 2025
  - Conceived an action shooter where each run applies a randomized curse mechanic derived from probability distributions.
  - Crafted all assets and environments, applying modular arithmetic to ensure seamless prop placement.
  - Orchestrated gameplay loops using state machines and formal logic to optimize replayability and immersion.
- RetroPunk | Static Rail Shooter, Unreal Engine 5** 2025
  - Engineered innovative rail shooter mechanics with dual bullet types, balancing damage through weighted functions.
  - Devised enemy AI inheritance trees, applying algorithmic complexity to manage Fire/Ice behaviors.
  - Built material-switching pipeline based on Boolean logic to deliver visual cues without UI overhead.
- Top-Down Zombie Shooter | Horde Game, Unreal Engine 5** 2023
  - Constructed survival gameplay with wave-based progression modeled on exponential difficulty curves.
  - Implemented dual-input mechanics using vector decomposition for independent movement and aiming.
  - Designed AI pathfinding with line-of-sight algorithms and signal processing for sound-triggered behavior.

## SKILLS

**Programming:** C++, C#, Java, Python, Unity, Unreal Engine 5, Blueprints, Game Logic  
**Math Systems:** Linear Algebra, Probability, Graph Theory, Control Systems, Optimization  
**Tools:** Blender, 3D Modeling, Animation  
**Software:** Microsoft Office (Word, Excel, PowerPoint), DaVinci Resolve, Affinity Designer 2  
**Soft Skills:** Leadership, Communication

## EDUCATION

- VIT Bhopal University** Bhopal, MP  
B.Tech CSE with Gaming Technology 2022 – 2026
  - Coursework:** Computer Graphics, Physics of Game Development, OOP, DSA, Software Engineering, Computer Networks, 3D Modeling and Animation, Programming in Unity, Computer Vision.
- St Marks Sr Sec Public School** New Delhi  
High School Diploma / XII CBSE Graduated 2022

## CERTIFICATIONS

**Unity and C# Basics – Coursera** Issued Dec 20, 2023