Nikhil Ranjan

+91-8340362354

Software Development Engineer | Game AI | Distributed Systems | Simulation & AI

Portfolio: https://nikhilranjannn.github.io/nikhil-portfolio/ | nikhil.srivastav08@gmail.com

Skills

Languages: C#, Python, Lua, C++

Tools & Frameworks: Unity, Git, OpenCV, Roblox Studio, PyTorch

AI, Research & Engineering Expertise: Reinforcement Learning (PPO) & Reward Engineering, Autonomous Decision Systems, RL in Game & Simulation Environments, Adaptive Game AI Agents, Multiplayer Gameplay Architecture & State Synchronization, Real-Time Performance Optimization, Computer Vision for Interactive Systems, VR/AR Experience Development, Prompt Engineering

Experience

Game Developer | Zero Metrix, Ranchi | Mar 2021 – Apr 2023

Independent Game Developer | Homeseeker's Gamein, Ara | Aug 2017 – May 2019

Junior Unity Developer | Pushback Technologies, Pune | Feb 2017 – Jul 2017

Education

Indian Institute of Technology, Patna
M.Tech – AI & Data Science Engineering | Jul 2023 – Jul 2025
CPI: 8.61 | Thesis: Adaptive Game AI using Reinforcement Learning

Sam Higginbottom Institute of Agriculture, Technology & Sciences, Allahabad
B.Tech – Computer Science & Engineering | Jun 2012 – Jun 2016
CGPA: 6.95

Research & Academic Projects

MTech Mega Project:

AI Odyssey – Adaptive Game AI using Reinforcement Learning (2024–25)
Odyssey (Unity, PPO RL): Designed and trained a neural network–based agent that recognizes patterns in the environment to navigate a timed maze, leveraging reinforcement learning with reward-based optimization for adaptive gameplay.

MTech Minor Project & Seminar:

DreamStone – Text & Image Guided 3D Shape Generation (2023–24): Implemented a data-driven ML pipeline using PyTorch and the Pix3D dataset, including custom dataset loading, image preprocessing, 3D mesh-to-voxel conversion using Trimesh, voxel normalization, batch processing with DataLoader, and visual analysis of image–3D voxel pairs as part of a Generative AI research seminar.