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EDUCATION

Indian Institute of Technology Kharagpur

Integrated M.Sc in Physics (8.23/10)

West Bengal, India

Jul'19-May'24

WORK EXPERIENCE

Mayhem Studios

Jun'23-Aug'23

Unreal Developer Intern at Underworld Gang Wars

- Engineered customizable in-game features accessible like One-tap ADS, quick scope, peek & scope accessible via settings
- Crafted a dynamic free fall feature, complete with VFX, SFX and fall damage mechanics, intensifying player experience
- Integrated engaging Sound effects for footsteps, swimming, throwables, consumables actions and environmental sounds
- Drove the integration of **Quilkin**, a non-transparent UDP proxy, improving network security and capturing telemetry

Supergaming

May'22-July'22

Game Developer Intern at Tower Conquest: Metaverse

- Designed UI screens for PvE and PvP game modes, and description tool-tips for UI elements in **Unity Engine**
- Resolved bugs related to **synchronization** and parameters governing toughness using Visual Studio's **debugger**
- Integrated with back-end server APIs and utilized JSON files to populate user and game assets-related information

Wizwack Studios

Aug'21-Jan'22

Unity Developer Intern at StarHunt

- Designed and developed multiplayer features in the StarHunt game using **Firestore** cloud functions and **Firestore**
- Developed the gameplay logic, UI, **procedural level designs**, sounds and animations of the game Giant-Runner

PROJECTS

HummingBirds | Lead Developer

Objective: To design and train an agent to compete against a player in an open environment

- Created a mini-game where the player competes against a trained AI model using **Unity ML-Agents** and Python
- Trained a model in python environment using **Multi-Layer Perceptron** structure and **Swish** activation function
- Designed and developed heuristic, reward, and reset functions while analyzing training results using **TensorBoard**

Simple Shooter | Lead Developer

Objective: To create a Multiplayer Third person shooter game

- Created a TPS game and implemented player movement, animations, shooting, and Enemy AI in **Unreal engine**
- Designed UI menu for match-making and added multiplayer features using **NULL** and **Steam** Online Subsystems

TECHNICAL SKILLS

Programming: C++, C#, C, Python, JavaScript, Lua, HTML

Software Packages: Unity Engine, Unreal Engine, LOVE 2D, VS Code, Rider, React

Tools: Github, Source tree, Tortoise SVN, Perforce

POSITIONS OF RESPONSIBILITY

Software Team Member, Computer Graphics Lab | IIT Kharagpur

Nov'19-Apr'21

Part of 20-member team involved in making Computer Graphics Applications and Games

- Contributed in gameplay features of the game **Ricksy Run** built on Unity engine having **35K+** downloads on Playstore
- Organized game development workshop to teach basics of Unity to **200+** students in collaboration with Kshitij 2020

COURSES UNDERTAKEN

Core courses: Programming and Data Structures (Theory + Lab), Design and Analysis of Algorithms (Theory + Lab), Introduction to Augmented Reality and Virtual Reality, Financial Analytics, Physics, Mathematics, Classical Mechanics, Quantum Mechanics, Transform Calculus, Mathematical Methods, Computational Methods

MOOC: CS50's Introduction to Game Development by Harvard University, Complete C# Unity Game developer 3D by Ben Tristem, Unreal Engine 5 C++ Developer by GameDev.tv, ML-Agents: Hummingbirds by Immersive Limit LLC, The Mathematics of AI by Penny de Byl, Unreal C++ Multiplayer Master: Intermediate Game Development by GameDev.tv, Unreal Engine 5: Action-RPG Style Open World Game! by Stephen Ulibarri*