

Vishal Maurya

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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

Supergaming

May'22-July'22

Game Developer Intern at Tower Conquest: Metaverse

- Implemented gameplay features using **Finite State Machines** in Web3-based game **Tower Conquest: Metaverse**
- 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
- Designed UI screens for PvE and PvP game modes, and description tool-tips for UI elements in **Unity Engine**

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**
- Integrated mobile rewarded and interstitial advertisements in **Fight-Back** using **Android SDK** and Google AdMob
- 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**

Balance | Mini Jam 84: Bubbles

Objective: To create a game based on Bubbles theme in the given time

- Created a timer-based game, where players have to tap on bubbles of gases to maintain an optimal level of each gas
- Delivered playable **WebGL** build of the game in 72 hours and was ranked **69th** among **600+** participants worldwide
- Playable WebGL build was published on **itch.io** and can be played using link <https://mvishal2002.itch.io/balance>

TECHNICAL SKILLS

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

Software Packages: Unity Engine, Unreal Engine, LÖVE 2D, Github, VS Code, React

Libraries: Git, Numpy, Pandas, Matplotlib, Json.NET

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
- Hosted educative **Unity tutorials** and edited videos using **DaVinci Resolve** for official YouTube Channel of CGL

EXTRACURRICULAR ACTIVITIES

- Ranked **1st** among 20+ teams in **Robowars 2019-2020** organized by Technology robotics society, IIT Kharagpur
- Mentored **Illumination** team 2021-2022 of MMM Hall of Residence and attained **Silver** Medal among 20+ halls
- Member of Football team of MMM Hall in the **General Championship 2021-22** and secured **Bronze** medal

COURSES UNDERTAKEN

Core courses: Programming and Data Structures, Programming and Data Structures Lab, Design and Analysis of Algorithms, Introduction to Augmented Reality and Virtual Reality, 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 Engine 4 Master: Create Multiplayer Games with C++ by Epic Games*