

# HEENA THADANI

## Gameplay Programmer

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### PROFESSIONAL EXPERIENCE

- **Gatos Malos** Remote  
*Lead Software Engineer* May 2025 - present
  - Built 16-player LAN/Online multiplayer system in UE5 using C++ and Blueprints.
  - Developed party system with invites, joins, and reconnections via Online Subsystem.
  - Optimized replication for smooth hybrid local and networked play.
  - Enabled up to 4-player splitscreen with full LAN/Online support.
  - Added multiple control schemes with dynamic input handling.
- **PETALS WORLD STUDIOS** SINGAPORE  
*Multiplayer Matchmaking & Leaderboard UI/UX Developer* Nov 2022 - Aug 2023
  - Implemented front-end UI in Unity from Figma designs and built lobby/matchmaking systems.
  - Developed full-stack friend list, leaderboards, and player stats using Quantum PUN, boosting retention by 20%.
  - Integrated PlayFab and Facebook SDK for backend and social login, improving UX flow by 25%.
- **MITACS GLOBALINK** FREDERICTON, CANADA  
*Collaboration in Mixed Reality* Jun 2022 - Aug 2022
  - Generated an interface for storage of connected player activities for reference in virtual reality games using Photon Unity Networking and PlayerPrefs for disconnected players.
  - Conducted simulations on Meta Quest 2
  - Created a heat map of an ocean using provided longitude, latitude, and depth data in Blender using bpy

### SKILLS

- **Languages:** C#, C++, Python, Java
- **Game Engine:** Unity3D, Unreal Engine
- **UI/UX Design:** Figma, ImGUI, Unity's UI Toolkit
- **Version Control:** Git/Github, PlasticSCM
- **Networking:** UE5's Online Subsystem, Photon Unity Networking

### PROJECTS

- **Devblade | C++ | Unreal Engine 5.3 | Gameplay Programmer**
  - Designed and developed a modular combat system using UE5's Gameplay Ability System (GAS), supporting 10+ melee combos, directional hit reactions, block mechanics, and special weapon abilities with cooldowns.
  - Developed 5+ advanced AI behaviors with custom BTTasks, Decorators, Services, and Environment Query System (EQS) to support enemy flanking, ambushing, and dynamic responses in a 10+ wave-based survival combat mode.
- **Warflux | Unity3D | Gameplay Programmer, UI/UX Designer**
  - PCG: Generated a grid-based procedural generation system in Unity, leveraging A\* pathfinding for dynamic room placement and corridor connectivity, featuring a scalable dungeon environment with 10+ random room layouts and pathways.
  - UI/UX Ability System: Developed a modular UI system with pages for menu navigation, HUD, and ability selection, integrating real-time updates and ability switching for seamless gameplay.
- **Consumption | Unity3D | Gameplay Programmer**
  - Developed Onboarding Sequence through a chat window that help players understand key mechanics for the game. Also implemented gameplay mechanics, and UI/UX for the game.

### EDUCATION

- **Rochester Institute of Technology** Rochester, NY, USA  
*MS - Game Design and Development* 2023 - present
- **Mody University** Jaipur, India  
*B. Tech - Computer Science* 2019 - 2023

### COURSE WORK

- Game Dev Processes, Level Design, Graphics Programming, Console Dev, Intro to Web Tech, (*Teaching Assistant*) DSA for Game Simulations (*Teaching Assistant*)

### COMMUNITY

- Created a Gaming Community - Quest Gaming || IEEE CS MUST
- Instructor @ Unity Game Dev Summer Camp 2022 @UNB, Fredericton, Canada