Safwan Paleri

Gameplay-AI Programmer || MSc. Computer Games Technology @ Abertay University, Scotland, UK.

safwanpaleri@gmail.com || +447553109888

LinkedIn: https://www.linkedin.com/in/safwanpaleri || Portfolio: https://safwanpaleri.github.io

SUMMARY

Passionate Gameplay/AI Programmer with 2+ years of professional experience in 2D/3D, AR, XR, and VR game and app development. Skilled in C#, unity, multiplayer systems, and game architecture. Currently pursuing MSc in Computer Games Technology at Abertay University. Proven track record of developing and shipping games across platforms with expertise in backend/frontend programming, gameplay systems, and team collaboration.

EXPERIENCE

Unity Game Developer

App Mechanic (August 2022 – December 2024)

- **Gameplay & AI Systems**: Built 2D and 3D gameplay features including combat mechanics, health/reward systems, car customisation, and AI agents (FSM-based NPC enemies, auto-player bots, and LLM-integrated NPC dialogue).
- **AR/VR/XR Development**: Delivered multiple AR/VR projects using Vuforia, Unity AR Foundation, and Niantic Lightship, including GPS-based location puzzles, shared AR object placement across devices, and VR terrain generation from GIS data.
- **Networking & Multiplayer:** Implemented Photon-based multiplayer systems with chat and friend lists, plus fallback AI agents for matchmaking. Developed backend integrations using PlayFab, AWS S3, and Firebase (databases, storage, runtime asset fetching) using .NET and respective APIs.
- **Tools & Systems Development**: Created reusable tools, including a music-driven gameplay system that synchronises player actions with beats, and Unity Addressables pipelines for asset management.
- **Live Ops & Monetization**: Integrated Unity Ads (banner, interstitial, rewarded) and in-app purchase systems across Android and iOS platforms.
- **Generative AI Integration**: Experimented with cutting-edge LLM integrations (ChatGPT/DALL·E for dialogue & image generation, Whisper for speech-to-text, Inworld AI for dynamic NPC dialogue).

[Projects Worked**]** **[**Play store links of worked games**]**

Unity Game Developer Intern

Tentaxaur Studios (May 2021 – July 2021)

- Built core gameplay mechanics and interactive features for multiple prototype projects.
- Translated initial design concepts into functional prototypes, enabling the team to visualise and refine gameplay ideas early in development.
- Implemented AI behaviours for NPC enemies and a final boss using finite state machines (FSMs) to handle combat states and conditional transitions.
- Collaborated with designers to test and iterate on mechanics, improving communication between design and programming.

Game Tester Intern
Shahwebsetters (March 2021)

- Conducted gameplay testing focused on mechanics such as scoring systems, timing, and overall balance.
- Evaluated UI elements, including buttons, menus, and settings, to ensure usability and functionality.
- Created and maintained structured bug/issue tracking reports in Google Sheets to support developer iteration

EDUCATION

Master's degree
MSc. Computer Games Technology
Abertay University, Scotland, UK (September 2024 – August 2025)

Bachelor's degree
Bachelor of Technology. Computer Science Engineering (Honours)
Lovely Professional University, Punjab, India (July 2019 – July 2023)

PROJECTS

1. **LLM Game Dialogue Evaluation Tool (Unity, C#)**: Designed and implemented a Unity-based tool to integrate and compare multiple Large Language Models (ChatGPT, Gemini, Claude, Mistral, DeepSeek) for NPC dialogue generation. Developed automated and interactive testing scenes, real-time metric evaluation (coherence, relevance, naturalness, engagement, contextual accuracy, response time), and visualisation dashboards. Enabled prompt engineering experiments, stress testing, and provided a reusable Unity package for developers.
   [Demo Video – YouTube] [Github Repo]
2. **Critter Catcher:** Lead programmer in a multidisciplinary team. I was responsible for implementing core AI systems and game mechanics. I collaborated closely with designers and artists, contributing to creative decisions and enabling rapid iteration through modular and reusable systems.
   [Project Video Recording - Source Code **]**
3. **Procedural Generation:** Developed a 2.5D procedurally generated maze ball game using C++ and DirectX. The project focuses on gameplay mechanics, procedural content generation, collision detection, and real-time post-processing effects.
   [Demo Video and Source Code**]**

SKILLS

Game Engines And Tools: Unity, Unreal Engine, Visual Studio, GitHub, Perforce, Jira. **Programming Languages:** C#, C++, Python, **Technologies:** Firebase, AR Foundation, Photon, Vuforia, PlayFab, AWS, Azure, Mapbox. **Game Dev Skills:** Gameplay Programming, AI Programming, UI Programming, Network Programming, AR/VR/XR, Game Prototyping**,** Git, Agile Development, Design Patterns, Data Structures, OOP. **Soft Skills:** communication, collaboration, problem solving, adaptability, Time Management.