Dissertation Project Idea

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Working Title: The Celestial Beyonds
Theme: Space Hub Explorer
Game type: 3rd Person Shooter
Characters: Player, Companions, NPCs and Enemies
Technologies: Unity or Unreal - Heavy Focus on AI
AI: Path-finding & Machine Learning
Music: Electronic and Ambient

Story/Gameplay: The game will start when the Player meets the companion/guide who helps the Player throughout the levels and hubs they explore together. The pair discover new planets where they meet other NPCs and fight enemies. The game will have a heavy focus on AI. The companion with be working with a path-finding system to follow the Player and explore the hubs. Also, the companion will be able to talk to the Player with the use of a chatbot system that works from machine learning. Meaning the companion will be able to learn from the Player and vice versa. The NPCs will be able to wander around their hubs and interact with each other with another path-finding system. While the enemies will also work off a path-finding system, the player will have to fight them in order to progress. The game will also feature a spaceship where the Player flies from one planet to the other which should create some very nice cinematics.

AI:
The AI system may have to be done outside of the chosen game engine. If this is the case I plan to use Python as I have experience with it and its AI extension TensorFlow for Neural Networks. This also means a web server might have to be set up in order to receive the results of the AI program which I also have experience with.

Image Inspo:




Research Questions:

How can Artificial Intelligence implementation improve a Games interaction with the Player?

What role does Artificial Intelligence have in terms of gameplay interaction?

Can Artificial Intelligence make for a realistic Game Character that can interact with Players for an authentic experience?