GMIT

INSTITIÚID TEICNEOLAÍOCHTA NA GAILLIMHE-MAIGH EO

GALWAY-MAYO INSTITUTE OF TECHNOLOGY

AI TRUCK PARKING GAME

PROJECT ENGINEERING - YEAR 4

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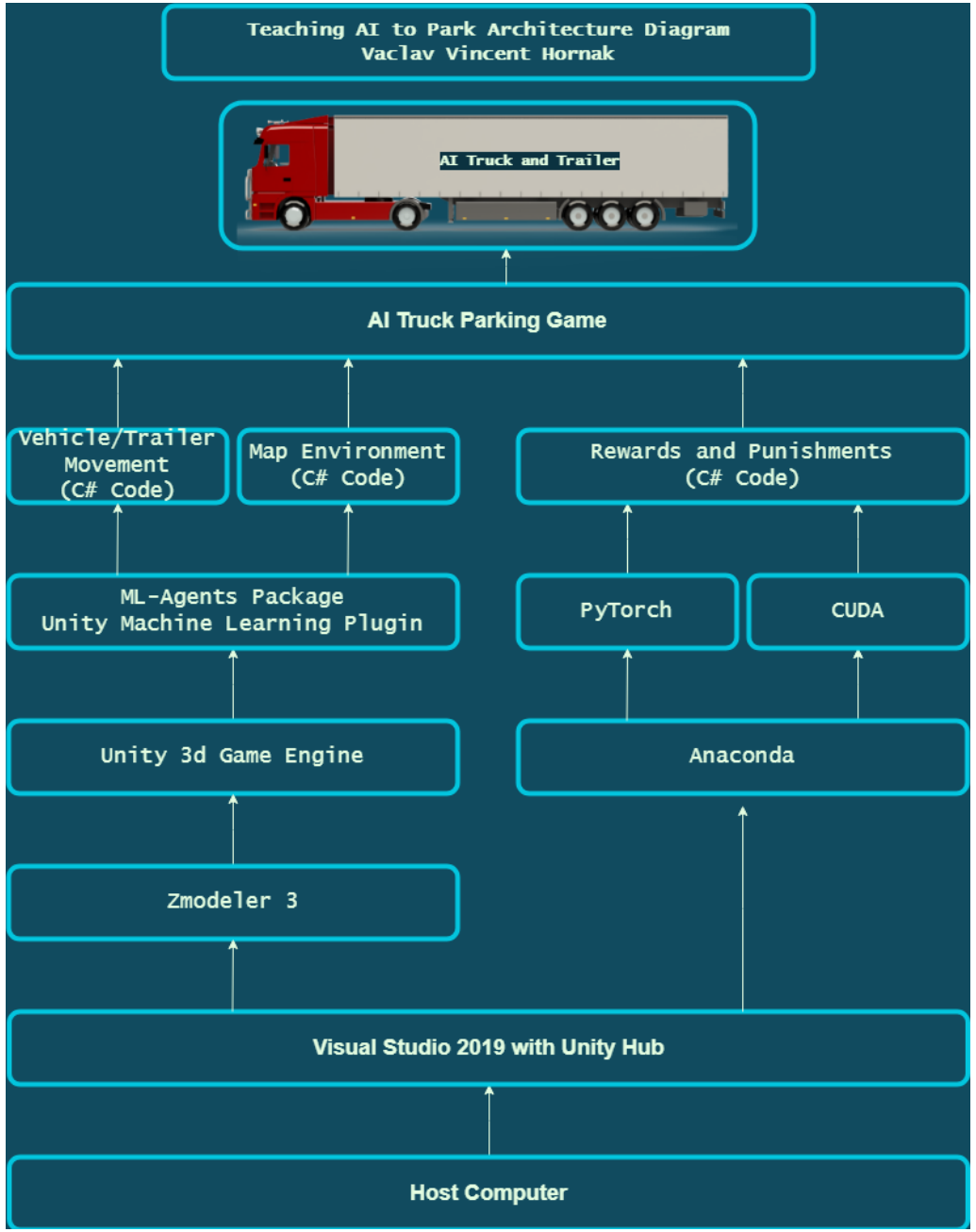
Introduction

For my final year project, I decided to look into developing a game which I have had interests in for years and within that game, try to teach AI to park a truck with a trailer.

The idea game from my hobby of truck simulation and the recent shortage of HGV drivers around Europe which effected the economy in a negative way.

I think this project can be developed and used to teach future drivers how to park with a large truck which is a skill people struggle with due to the sheer size of the vehicle.



Architecture Diagram

Technologies

Unity is the game engine my parking game runs on.

C# is the main code used to create the scripts for the actions within the game.

Zmodeler 3 was used to create the 3D models used.

GitHub was used to host my code and allow for version control.

Conclusion

The game allows for a user to manually control a truck which is connected to a semi-trailer on a self built environment to drive to the required parking spot to complete the task at hand. The game development was very enjoyable and something that I will look towards as a career in the future.

Although I struggled to integrate the AI into my project, I learned a lot from my extensive research and will look to add it to my project in my own time and get a better understanding for this type of machine learning.