Jared De Los Santos

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EDUCATION

B.S. Computer Science **Graduation Date:** May 2023
California State University, Fullerton

PROJECTS

INTENTIONAL NEGATIVE TACTIC DETECTION | Research Project | Research Paper **August 2022 - Present**

- Created an anomaly detection system in video games to help battle against unfair and negative interactions
- Automatically aggregate and process data from API calls on a daily basis with an average of 200,000 calls resulting in over millions of clean data observations.
- Visualize and analyze data using Pandas and Matplotlib to help guide our feature and model selection.
- Next steps are to select a model and perform evaluation, exploring Deep Learning and Machine Learning

TDM, DISCORD BOT | Multi-purpose bot | discord.py **August 2022 - December 2022**

- Utilizes Riot's API to track player statistics, alongside libraries such as Matplotlib and Pandas to display and transform data
- Utilizes the youtube-dl library and ffmpeg to give the bot the ability to play music inside a voice channel
- Creation of utility features such as server moderation, logging, and polls that help make Discord servers more welcome and user-friendly
- Creation of mini-games to help increase user interaction and entertainment

SPACE INVADERS | Retro game remake | Pygame | Aseprite **September 2022**

- Capable of graphics, such as coding sprites that would play a set of images as their model
- Creation of animations for the ship, the aliens, and their death animations using Aseprite
- Following rubric as required by the project while receiving feedback from instructors to ensure comprehension of subject
- Utilizes the Pillow Python Imaging Library to create the barriers that protect the ship from alien lasers

PACMAN | Retro game remake | Pygame | Aseprite **October 2022**

- Creation of animations for Pac-Man, the ghosts and their death animations using Aseprite
- Use of A* algorithm to create the AI for the ghosts on how to chase Pac-Man
- Use of Graphs for choice of traversal through the maze

CROSSY ROAD | 3D game remake | Unreal Engine 5 | Blueprints | MagicaVoxel **September 2022 - Present**

- Capable of endlessly generating terrain for as far as a player can get within the game
- Utilizes MagicaVoxel to create the models required for the terrain generation, obstacles and the player
- Use of Blender to export obj files from MagicaVoxel as fbx files to have the ability of importing the model cleanly into Unreal Engine 5
- Complete use of Blueprints for game logic with no manual optimizations in the C++ code

SKILLS

Machine Learning: TensorFlow, Keras, Scikit-learn

Data Science: Pandas, NumPy, SciPy, Matplotlib, Seaborn

Languages: Python, C/C++, C#, R, SQL

Technology: Git, Jupyter, LaTeX, Googling