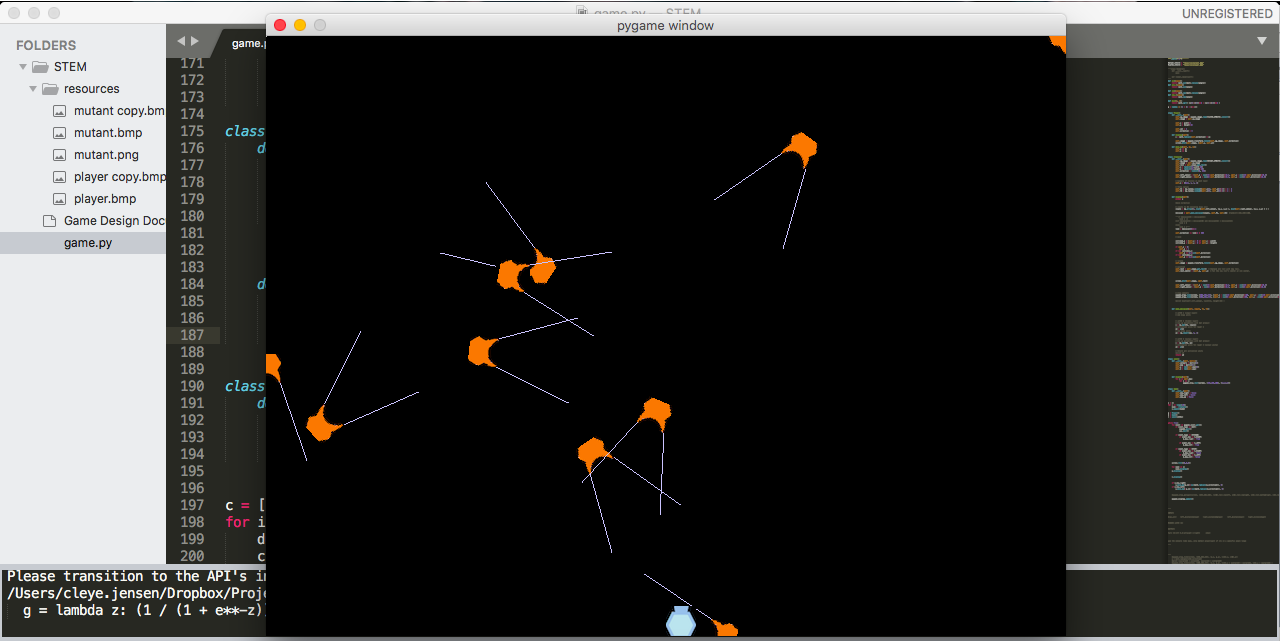
Game Design Document

Planning for the game began early 2018 when the theme was released. The aspects that stood out the most from Transformation were the mutation and evolution. I had dabbled in machine learning and neural networks before and was inspired by genetic algorithm simulators on YouTube to create something similar. At first I had no clue what to make, early brainstorms developed ideas like evolving from a fish to a human, training a car how to move through mazes and even a plant growing game. In spite of the continual emphasis on planning, planning, planning, at the time of writing this game document in early April I still don’t know what my game will be



Game Title

problems

first problem – how to rotate an image without it going everywhere, took a week to solve

what inputs and outputs should the nn have

INPUTS bias\_unit left\_distance2player right\_distance2player left\_distance2wall right\_distance2wall

HIDDEN LAYER (4)

OUTPUTS turn (0-left 0.5-straight 1-right) shoot

turn was 3 different outputs (left right straight), creatures starting going straight it looked unnatural