OBJECTIVE: Summer 2023 SWE Internship or ML Research

EDUCATION

Carnegie Mellon University

AUGUST 2021 - CURRENT

- BS **Computer Science** 2025
- Concentration in **Machine Learning**

Fair Lawn High School

GPA: 4.4

SEPTEMBER 2017 - JUNE 2021

- **Ten AP** classes taken in total
- All Honors besides AP classes
- **Head of Drumline** in Marching Band

PROJECTS

doidVerse: Real-Time Evolution Simulator

MAY 2022 - AUGUST 2022 **(Lead Software Engineer)**

- Created a real-time **Evolution Simulator** in **C#** using **Unity3D**.
- Implemented **NEAT (NeuroEvolution of Augmenting Topologies) algorithm** to find optimal neural network configuration. Agents are born with randomized **graph neural networks**, using an **adjacency list** implementation, that converge to the optimal configuration due to **natural selection**.
- Made **procedurally generated** maps with **cellular automata**.
- Optimized the search space so optimal configurations are found in **less than 5 minutes**
- **200+** hours of work, **2000+** lines of code

GameOfEvo: Automata Inspired Evolution Simulator

APRIL 2022 - MAY 2022 **(Lead Software Engineer)**

- Created an Automata Inspired **Evolution Simulator** in **Python** using **networkx, matplotlib, cv2,** and **numpy.**
- Implemented agents with **graph neural networks** that only reproduce the next generation if they meet some arbitrary criteria. Natural selection picks the optimal configurations to reproduce.
- **80+** hours of work, **1000+** lines of code

hthsHacks: AniLarm Rodent Detector

MAY 2020 **(Software Engineer)**

- Developed **Python** program using **harrcascasdes**, **OpenCV**, and **arduino** to notify farmers of rodents eating crops.
- Made with group of 4 for the **hthsHacks** Hackathon which took place on May 16, 2020
- Created to solve the problem of food shortages due to **COVID-19**

Amaad Martin

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SKILLS

PROGRAMMING LANGUAGES

C
C#
Python
Java
SML
LaTeX

TOOLS/FRAMEWORKS

Unix Command Line
Git
Unity3D

COURSEWORK

21-259 Calculus in 3-D
07-180 Concepts in AI
21-128 Math Concepts & Proofs
15-122 Principles of Imperative Computation
21-241 Matrices & Linear Transformations
15-150 Principles of Functional Programming

HOBBIES/CLUBS

ColorStack - Operations Chair
CMBMC - Org Collab & Small Events Chair
NSBE (National Society of Black Engineers)
SPIRIT Black Student Organization