Objective

Summer 2023 SWE Internship or ML Research position

Education

Carnegie Mellon University
Aug 2021 – present | Pittsburgh, United States
BS **Computer Science** 2025
Concentration in **Machine Learning**

Fair Lawn High School
Sep 2017 – Jun 2021 | Fair Lawn, United States
- took **ten AP** classes
- **Head of drumline** in Marching Band

Projects

doidVerse: Real-Time Evolution Simulator
Lead Software Engineer
May 2022 – Aug 2022
- Created a real-time **Evolution Simulator** in **C#** using **Unity3D**
- Implemented **NEAT (NeuroEvolution of Augmenting Topologies)** algorithm to find optimal neural network configuration
- Made agents with randomized **graph neural networks**, using an **adjacency list** implementation, that converge to the optimal configuration through natural selection
- Made **procedurally generated maps** with **cellular automata**
- Optimized the search space so optimal configurations are found in **less than 5 minutes**
- Put in **200+** hours of work, **2000+** lines of code

GameOfEvo: Automata Inspired Evolution Simulator
Lead Software Engineer
Apr 2022 – May 2022
- 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
- Used **natural selection** to pick the optimal configurations to reproduce
- Put in **80+** hours of work, **1000+** lines of code

hthsHacks: AniLarm Rodent Detector
Software Engineer
May 2020
- 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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Portfolio
amaadmartin
AmaadMartin

Skills

C | C# | Python | Java | SML | LaTeX | Command Line | Git | Unity3D

Courses

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

Organisations

ColorStack
Operations Chair

Carnegie Mellon Black Male Collective
Organization Collab & Small Events Chair

National Society of Black Engineers

SPIRIT Black Student Organization