Amaad Martin

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Objective

Summer 2023 SWE Internship or ML Research position

Education

Carnegie Mellon University
Aug 2021 – May 2025 (Expected) | Pittsburgh, Pennsylvania, United States
- Bachelor of Science in **Computer Science**
- Concentration in **Machine Learning**

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

Projects

doidVerse: Real-Time Evolution Simulator 🔗
May 2022 – Aug 2022
- Created a real-time **Evolution Simulator** in **C#** with **Unity3D**
- Implemented **NEAT (NeuroEvolution of Augmenting Topologies)** algorithm to find optimal neural network configuration
- Leveraged **graph neural networks,** with **adjacency list** representations, allowing for mutable neural networks
- Developed **recurrent graph neural network** architecture
- Designed **procedurally generated maps** utilizing **cellular automata**
- Optimized search space so optimal configurations are found in **less than 5 minutes**
- Combined **200**+ hours of work, **2000**+ lines of code

GameOfEvo: Cellular Automata Evolution Simulator 🔗
Apr 2022 – May 2022
- Created cellular automata-inspired **evolution simulator** in **Python** using **networkx**, **matplotlib**, **cv2**, and **NumPy**
- Designed **graph neural network** using **edge list implementation** to allow for mutations
- Integrated **natural selection algorithm** to pick optimal configurations to reproduce
- Combined **80**+ hours of work, **1000**+ lines of code

hthsHacks: AniLarm Rodent Detector 🔗
May 2020
- Developed **Python** program using **harrcascasdes**, **OpenCV**, and **Arduino** to notify farmers of rodents eating crops
- Leader of group of 4 for the **hthsHacks** hackathon in 2020
- Devised to solve problem of food shortages caused by **COVID-19**

Experience

Sales Associate
Party City
Sep 2020 – May 2021 | Paramus, New Jersey, United States
- Serviced customers by picking out and ordering costumes improving reviews and ratings.
- Restocked, arranged, and organized items to construct attractive displays and drive product sales by 150% in 8 months.

Skills

C | C# | Python | Java

SML | LaTeX | Command Line

Git | Unity3D

Courses

21-259 (3D Calculus)

07-180 (Concepts in AI)

21-128 (Discrete Math)

15-122 (Data Structures & Algorithms)

21-241 (Introduction to Linear Algebra)

15-150 (Principles of Functional Programming)

Organizations

ColorStack
Operations Chair (E-Board)

Carnegie Mellon Black Male Collective
Organization Collaboration & Small Events Chair (E-Board)

National Society of Black Engineers

SPIRIT Black Student Organization