Amaad Martin

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🏹 amaadmartin.github.io/portfolio   in linkedin.com/in/amaadmartin   ⓞ github.com/AmaadMartin

EDUCATION

Carnegie Mellon University   08/2021 – May 2025 (Expected)
                                                          Pittsburgh, Pennsylvania, United States

Bachelor of Science in **Computer Science**
Concentration in **Machine Learning**
GPA: 3.4

Fair Lawn High School   09/2017 – 06/2021
                                                          Fair Lawn, New Jersey, United States

GPA: 4.4

EXPERIENCE

Software Development Engineer   05/2023 – 08/2023
Amazon   Seattle, Washington, United States
- Created **an ECS Fargate service** using **AWS** to help internal customers
- **Automated internal process** for other SDE employees
- Cut down process time from **2 weeks** to **2 minutes**
- Integrated existing CLI commands into **easy-to-use UI** using **Ruby and Javascript**
- Implemented new **API**

PROJECTS

doidVerse: Real-Time Evolution Simulator
05/2022 – 08/2022
- 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
- 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
04/2022 – 05/2022
- 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

COURSES

15-210 (Parallel and Sequential Data Structures and Algorithms)

10-315 (Intro to Machine Learning)

15-213 (Intro to Computer Systems)

21-259 (3D Calculus)

15-122 (Data Structures & Algorithms)

36-218 (Probability Theory)

21-128 (Discrete Math)

15-251 (Great Ideas in Theoretical Computer Science)

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

LANGUAGES / FRAMEWORKS

- C
- C#
- C++
- Python
- Java
- SML
- LaTeX
- Unix
- Git
- Mockito
- JUnit
- Pytorch
- Spring
- Guice
- Dagger
- AWS