

Amaad Martin

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EDUCATION

Carnegie Mellon University 5th-year MS Machine Learning 2025	Pittsburgh, Pennsylvania, United States
Carnegie Mellon University BS Computer Science Machine Learning Minor GPA: 3.54	08/2021 – December 2024 Pittsburgh, Pennsylvania, United States

EXPERIENCE

Software Development Engineer <i>Amazon</i> <ul style="list-style-type: none">Built Internal API for Diagnosing Stuck WorkflowsIntegrated API into Automatic DJS job for Automated DiagnosisIncorporated Amazon Bedrock Gen AI for LLM Diagnosis of Workflow	05/2024 – 08/2024 Seattle, Washington, United States
Software Development Engineer <i>Amazon</i> <ul style="list-style-type: none">Created an ECS Fargate service using AWS to help internal customersAutomated internal process for other SDE employeesCut down process time from 2 weeks to 2 minutesIntegrated existing CLI commands into easy-to-use UI using Ruby and JavascriptImplemented new API	05/2023 – 08/2023 Seattle, Washington, United States

UNIVERSITY RESEARCH

ReVL <ul style="list-style-type: none">Research under Prof. Matt Gormley of the Machine Learning DepartmentAdding Recursive Inductive Bias to Large Visual Language Model to improve desktop control taskFine-tuning the QwenVL Open Source Large Visual Language ModelAchieved 86% performance of prior paper with 10% of the data	02/2024 – present
Reinforcement Learning Car <ul style="list-style-type: none">Research under Prof. Matt Gormley of the Machine Learning DepartmentIntegrating DayDreamer algorithm into remote controlled Raspberry Pi carArchitecting demonstration of Reinforcement Learning for students of 10-301/601 (Intro to ML)Attempting to train optimal agent in under 6 hours	09/2023 – present

PROJECTS

GenStudio: Copilot for Mixing and Mastering (Plugin) 12/2023 – 01/2024 <ul style="list-style-type: none">Pivoted from Generative Sample Library to plugin for producersImplemented Digital Audio Workstation plugin using the JUCE FrameworkUtilized OpenAI Assistants API to control audio effectsIterated based on feedback from 3 users to create a product they loved
GenStudio: Generative Sample Library (Website) 11/2023 – 12/2023 <ul style="list-style-type: none">Developed react website for generating stems for a sample given a text inputConnected Meta's MusicGen API using ReplicateEmployed Demucs Library for stem separationAccepted for YCombinator Interview
doidVerse: Real-Time Evolution Simulator 05/2022 – 08/2022 <ul style="list-style-type: none">Created a real-time Evolution Simulator in C# with Unity3DImplemented NEAT (NeuroEvolution of Augmenting Topologies) algorithm to find optimal neural network configurationLeveraged graph neural networks, with adjacency list representations, allowing for mutable neural networksDesigned procedurally generated maps utilizing cellular automataOptimized search space so optimal configurations are found in less than 5 minutesCombined 200+ hours of work, 2000+ lines of code

COURSES

10-707 (Advanced Deep Learning)
10-703 (Deep Reinforcement Learning)
10-623 (Generative AI)
10-315 (Intro to Machine Learning)
15-281 (Artificial Intelligence: Representation and Problem Solving)
15-451 (Algorithm Design and Analysis)
15-210 (Parallel and Sequential Data Structures and Algorithms)
15-418 (Parallel Computer Architecture and Programming)
15-213 (Intro to Computer Systems)

ORGANIZATIONS

ColorStack <i>Operations Chair (E-Board)</i>
Carnegie Mellon Black Male Collective <i>Organization Collaboration & Small Events Chair (E-Board)</i>
National Society of Black Engineers
SPIRIT Black Student Organization

LANGUAGES / FRAMEWORKS

• C	• C++	• Python	• Java
• LaTeX	• Git	• Mockito	• Pytorch
• Spring	• AWS	• OpenAI API	• React
• Hugging Face	• Weights And Biases	• NumPy	• Unix Command Line