Nathaniel Marquez

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EDUCATION

Carnegie Mellon University, School of Computer Science *Pittsburgh, PA*
B.S. Artificial Intelligence | Concentration in Human-Computer Interaction *May 2024*
Dean's List with High Honors (Spring 2022)

Relevant Coursework: Parallel & Sequential Data Structures/Algorithms • Functional Programming • C • Python • AI
• Cognitive Science • Probability Theory • Multivariate Calculus • Linear Algebra • Discrete Math

WORK EXPERIENCE

Meta/Facebook *Menlo Park, CA • Summer 2022*
Software Engineer Intern (Upcoming Role)

Fanhouse *Remote • Summer 2021*
Software Engineer Intern
- Developed full-stack web features for the social media platform which processed over **$2M** during my tenure
- Implemented a weighted social graph experienced by over **65,000 users** for content recommendation
- Single-handedly trained the neural network for the content moderation of over **30,000 monthly photo uploads** *(Github)*
- Brainstormed marketing and engineering experiments with CEO, CTO, and CMO to increase revenue

Carnegie Mellon University, School of Computer Science *Pittsburgh, PA*
Teacher's Assistant for 07-180: Concepts in Artificial Intelligence *Spring 2022*
- Worked with **10 TAs** to run a relatively new course of **75 students** (fourth semester of the course being taught)
- Designed and taught **2 new recitations**, held weekly office hours, and proctored group discussions during lectures

Teacher's Assistant for 15-112: Fundamentals of CS *Spring 2021*
- Worked on a team of **50 TAs** to run a class of **300 students**, made up of both undergraduate and graduate students
- Lead recitation of **25 students 3 times a week**, graded quizzes/tests, held office hours and tutored individual students
- Organized an optional lecture with 2 TAs to teach **60 students** about game AI, search algorithms, and decision theory
- Judged and ran a school-wide hackathon, Hack112, involving **200+ students**

PROJECTS

POG PONG *(Devpost)* *15-112 Term Project • December 2020*
- Programmed a 3D pong game using OOP, TkInter, and Carnegie Mellon's MVC framework
- Implemented OpenCV for "camera controls", giving users the option to control the paddle with their hand

Market Spoofing Detection *(Devpost)* *Citi Bank x CMU • October 2020*
- Created an ML classifier with PyCaret to classify "spoofs", orders that illegally influence stock market price

ACTIVITIES

Youtube Channel *(See Here)* *June 2020 - Present*
- Documents my experiences at Carnegie Mellon and gives college application advice
- Edits, shoots, writes, and produces each video, with a total viewership of over 64,000 views

Carnegie Mellon Filipino Student Association, *Treasurer* *August 2020 - Present*
- Promotes the Filipino Community through cultural events, guest lectures, and celebrations

HONORS

HSF (Hispanic Scholarship Fund) Scholar and Recipient *August 2020*
Future Business Leaders of America Website Design *(Presentation)* *7th Internationals/1st State • July 2019*

SKILLS

Proficient Languages	Familiar Languages	Other Development Skills
Python • C • JavaScript • SML	C++ • Java • MATLAB	React • Node.js • HTML/CSS • Git • Wireframing • MVC/OOP • TensorFlow