

Nathaniel Marquez

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EDUCATION

Carnegie Mellon University, School of Computer Science

Pittsburgh, PA

B.S. Artificial Intelligence

Class of 2024

Relevant Coursework: Parallel & Sequential Data Structures/Algorithms • Functional Programming • DS/Algs in C • AI Concepts • Cognitive Science & AI • Probability • Multivariate Calc • Lin Alg • 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
- Given **\$5000** to successfully lead an experiment to sponsor YouTubers to create video content about Fanhouse

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
- Created, tested, and graded course materials such as homework, quizzes, and the final exam

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

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

Python • C • JavaScript • SML

Familiar Languages

C++ • Java • MATLAB

Other Development Skills

React • Node.js • HTML/CSS • Git • Wireframing • MVC/OOP • TensorFlow

