

# Nathaniel Marquez

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## EDUCATION

Carnegie Mellon University, School of Computer Science

Pittsburgh, PA

B.S. Artificial Intelligence • Minor in Innovation and Entrepreneurship

Class of 2024

### Relevant Coursework

Enrolled Courses: Intro to Systems • Principles of Functional Programming • Probability Theory

Previous Courses: Data Structures & Algorithms in C • Python • Concepts in AI • Multivariate Calculus  
Linear Algebra • Discrete Math

## SKILLS

### Proficient Languages

Python • C • JavaScript • SML

### Familiar Languages

C++ • Java •  
MATLAB

### Other Development Skills

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

## WORK EXPERIENCE

Fanhouse

Remote • Summer 2021

Software Engineer Intern

- Deployed full-stack web features using React and Node.js for the social media platform
- Implemented a weighted social graph for improved content recommendation
- Trained a neural network with Keras to classify posted images that violated community guidelines ([Github](#))
- Brainstormed marketing and engineering experiments with CEO, CFO, and CMO to increase GMV

Carnegie Mellon University, School of Computer Science

Pittsburgh, PA • Spring 2021

Teachers Assistant for 15-112: Fundamentals of CS

- Lead recitations of ~20 students, assisted with grading, held office hours, and tutored individual students
- Organized and taught an optional lecture about game AI, search algorithms, and basic decision theory
- Judged and ran a school-wide hackathon, Hack112, involving 200+ students

CodeNinjas

Austin, TX • Summer 2020

- Lead summer camps teaching Javascript, Introductory CAD, Digital Modeling, and Minecraft Modding

## PROJECTS

WriteAway

August 2021 - Present

- Working with [Christopher Porco](#) to develop a simplistic brainstorming and writing environment

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

Carnegie Mellon Filipino Student Association

August 2020 - Present

- Promotes the Filipino Community through cultural events, guest lectures, and celebrations

## HONORS

Hispanic Scholarship Fund Recipient

August 2020

Future Business Leaders of America Website Design ([Presentation](#))

7th Internationals/1st State • July 2019