# Nathaniel Marquez

512-688-9455 | nmarquez@andrew.cmu.edu | nathanjmarquez.com

# Education

# Carnegie Mellon University

Pittsburgh, PA

School of Computer Science

B.S. Artificial Intelligence (Intended)

Minor in Innovation and Entrepreneurship

Class of 2024 • GPA: 3.55/4.0

# Skills

# **Proficient Languages**

Python • Java

# **Basic Languages**

C++ • JavaScript

#### Other Development Skills

HTML • CSS • WordPress • Wireframing • Knowledge of MVC and OOP • Git

#### Relevant Coursework

15122: Principles of Imperative

Computation (C, Data Structures & Algs)

**07180**: Concepts in Al **21259**: Calculus in 3-D

**15112**: Fundamentals of Programming

and Computer Science (Python) **21241**: Matrices and Linear

Transformations

**15151**: Mathematical Foundations of Computer Science (Discrete Math)

#### Honors

# Hispanic Scholarship Fund

Aug 2020

# Future Business Leaders of America Website Design

7th Internationals/1st State • July 2019 (See Projects).

# University Interscholastic League Number Sense

1st Team/3rd Individual Virtual State Meet • April 2019

# **Projects**

#### POG PONG (Devpost)

#### Carnegie Mellon 15-112 Term Project • December 2020

Programmed a 3D ping pong game using TkInter and CMU 's MVC framework. Used OpenCV for "camera controls", which gives users the option to control the paddle with their hand.

#### StudyBuddy (Devpost)

#### Hack112 x CMU 24 Hour Hackathon • November 2020

Created a personal study analytics app that leverages computer vision and machine learning to help students study more effectively.

# Market Spoofing Detection (Devpost)

Citi Bank x CMU • October 2020

Created a machine learning classifier with PyCaret to classify "spoofs", orders in the stock market that illegally influence the market price.

# Accuracy Accounting Website (Presentation)

Future Business Leaders of America Website Design • July 2019 Used Wordpress, jQuery, and HTML/CSS to develop a fully responsive and dynamic website for an accounting company. (See Honors)

# **Work Experience**

# Carnegie Mellon University, School of Computer Science

15-112: Fundamentals of Programming & Computer Science Teachers Assistant • Spring 2021

Leads recitations of  $\sim$ 20 students, assists with grading, and planning a school wide hackathon, Hack112, involving 200+ students.

#### CodeNinjas

Sensei • Summer 2020 • Austin, TX

Taught basic Javascript and ran summer camps about Introductory CAD, Digital Modeling and other various STEM topics.

#### **Activities**

#### Youtube Channel (See Here)

Vlogs my experiences at CMU and gives college application advice.

# Carnegie Mellon Filipino Student Association

Member • August 2020 - Present

Helps promote the Filipino Community through cultural events, guest lectures, and celebrations.

#### Universal Interscholastic League Number Sense

Team Captain • 2011 - 2020

Competed in 10 minute, 80 question, mental math tests. (See honors) Organized practices with coach, recruited/mentored new members.