# Michael Nguyen

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Work	- Exp	erier	nce

#### **Teaching Assistant** Spring 2020 **Electrical and Computer Engineering Dept, Carnegie Mellon University** Lead small groups and office hours for 18100 Introduction to Electrical/Computer Engineering **Research Programming Assistant** Aug 2020 - May 2021 CyLab, Carnegie Mellon University Pittsburgh, PA

Developed Alternate Reality systems and 3D georeferenced models under Dr. Yang Cai, using Python, GIS, Blender, and JavaScript

#### **Robotics Instructor** Nov 2019 - May 2020

#### Genius Hangouts Cumming, GA

- Planned and instructed a class of students in mechatronics and coding
- Provided Coaching for 4 intermediate & 4 beginner robotics teams in local VEX IQ tournaments

#### **Data Science Research Intern**

Summer 2019

#### Center for Space Research, UT Austin Austin, TX

- Developed Python scripts to handle data from the ICESat-1 and ICESat-2 Satellite missions and create two dimensional and three-dimensional graphs
- Used GIS tools to create maps using data from the 2000 Shuttle Radar Topography Mission
- Presented at MIT Undergraduate Research Conference 2020

#### **Projects**

#### **Electronics Design Researcher**

Nov 2019 - May 2020

#### Central Processing Unit, Single Event Effects Prediction Cumming, GA

- Investigated the possible correlation between CPU complexity and Single Event Effect (SEE's) from Ionizing Radiation in Spaceflight
- Determined CPU architecture has a greater impact on vulnerability to SEE's relative to transistor
- Won U.S. Air Force Achievement Award at Georgia Science and Engineering Fair and 1st place at the Regional Science Fair

#### **Education**

### Carnegie Mellon University Pittsburgh, PA

Aug 2020 - May 2023

Bachelor of Science, Electrical and Computer Engineering Minor: Intelligent Environments

#### **Relevant Coursework**

Computer Science: Computer Vision, Imperative Computation, Fundamentals of Programming

EE/CompE: Digital Systems Design, Intro to Electrical and Computer Engineering

Nontechnical: Linear Algebra, Multivariable Calculus, Concepts of Math, Global Business

## Leadership

Project Advisor/Teaching Assistant, Project Ignite, Carnegie Mellon University	Oct 2020
CMU Explorers (Outdoors/Climbing Club) Member, Carnegie Mellon University	Oct 2020
VEX Robotics Team Captain, South Forsyth High School	Aug 2016 – May 2020
Physics Team Captain, South Forsyth High School	Aug 2018 – May 2019

#### **Skills**

Programming Languages: C/C++, Java, Python

Robotics Technologies: Computer Vision, Machine Learning Software: Git, MS Office, Google Colab, SolidWorks, Autodesk CAD Manufacturing: CNC Mill, 3D printers, Soldering, Breadboard

Safety: CPR and AED (Red Cross Certified 2017)

#### Notable Awards

Eagle Scout: Silver, Gold and Bronze Palms	Jan 2019
VEX Robotics State Champion (2020)	Feb 2020
4th Place Technology Division at VEX Robotics World Championship	Apr 2019
1st Place Software Development - GA Technology Student Association	Mar 2018
1st Place Electrical Applications - GA Technology Student Association	May 2019