# **JOHNNY NGUYEN**

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**EDUCATION** University of California, Los Angeles

Mechanical Engineering, B.S. (Expected June 2022)

GPA: 3.92/4.00

Activities: Bruin Racing, UCLA Esports

RELEVANT COURSEWORK

Mechanisms and Mechanical Systems, Transport Phenomena, Fluid Mechanics, Statics, Dynamics, Thermodynamics, Engineering Materials, Manufacturing Processes

**PROJECTS** 

Sliding Tabletop Design, Fall 2020

- Designed a mechanism to create horizontal motion from a motor input
- Simulated and optimized design using MATLAB

## 3-D Printed Macropad and Keyboard, Summer 2020

- Designed a macropad and keyboard from scratch in Solidworks
- Manufactured using 3-D printed PLA plastic and hand wired to a Pro Micro
- Programmed firmware using Arduino IDE and QMK Configurator

## Pandemic Modeling, Spring 2020

- Used stochastic SIR- and SEIR-models to model a pandemic in MATLAB
- Analyzed effects of preventative measures such as lockdowns

#### Music Transcription Device, Fall 2019

- Created a program in Python to transcribe piano music into sheet music using fourier transforms and spectrograms
- Performed analysis with a team to find potential shortcomings of our tool

#### 3-D Printed Rubber Band Car, Fall 2019

- Designed a rubber band powered car from scratch in Solidworks
- Manufactured using 3-D printed ABS plastic
- Collaborated with a team to refine and optimize our design

WORK EXPERIENCE

UCLA Court of Sciences Student Center, November 2018 - December 2019

Food Service Worker

- Take orders for, prepare, and serve food and drinks to customers
- Collaborate with coworkers to solve unexpected problems

**LEADERSHIP** 

Captain, UCLA Hearthstone Team, UCLA Valorant Team, September 2019 - Present

Plan and lead team practices

Science Field Day Coordinator, Mark Keppel High School, September 2017 - May 2018

- Planned science competition for hundreds of middle school students
- Managed over 100 volunteers and a large team of test creators and proctors

SKILLS

Microsoft Office, SolidWorks, Matlab, Java, Python, C++, 3D Printing