# **Brian Hou**

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## **OBJECTIVE**

Seeking a dynamic internship position as a hands-on mechanical/mechatronics engineer, specializing in designing, analyzing and building mechanical equipment focused on automation

## **EDUCATION**

# **Robotics Engineering, BSE**

Arizona State University (ASU)

Sophomore, 2022-2026 (Expected)

Cumulative GPA: 4.0

## WORK EXPERIENCE

# **Technician/ Engineer at Local Taiwanese Company (Internship)**

Delivery Robot Designer, Computer Technician

- Delivery robot CAD, planning, prototyping, construction
- In charge of all the computer software/hardware issues

Skills: Solidworks, Computer Technician, Robotics Engineering

May 2023 – August 2023

# PROJECT EXPERIENCE

# **PYRO Mechanical/Design Lead**

**ASU VEX Robotics Varsity** 

- Mechanical head of the Rossum Rumblers and PYRO robotics team
- 3D design using SolidWorks for complex mechanisms such as PTO drivetrain
- Responsible for 2 robot designs, testing, construction, and troubleshooting
- Programming/debugging using C/C++

Skills: Mechanical Design, Solidworks, Robotics Engineering, 3d Printing, C++

## **Custom Macro Keypad**

May 2022 - Present

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Personal Project

- 6-key keypad designed using Solidworks, Arduino Pro Micro, custom PCB
- A Youtube streamer uses it daily as a macropad for better stream quality and ease of life
- Sold out in the span of 2 weeks
- Reprogrammable to any desired key using the Arduino IDE

Skills: Solidworks, Embedded Systems, PCB Design, 3d Printing, Arduino, C++

## Team Founder & Mechanical/Design Lead

June 2019 – May 2022, Taiwan

VEX Robotics Varsity in KCIS (High School)

- Won the National Champion of Taiwan for two years
- Led the varsity team to win awards in various national and international competitions
- Successfully promoted VEX as one of the most popular clubs in the school
- Founded a VEX Discord group and answered members' questions.
- Continued to mentor newcomers after graduation

Skills: Leadership, Mentoring, Mechanical Design, Solidworks, Robotics Engineering, C++

#### **SKILLS**

- 3D Mechanical Computer-Aided Design: Solidworks, Autodesk, OpenSCAD
- Mechanical Technolgies/Construction: Working knowledge with machinery and hand tools
- Programming languages (C/C++, Java, Python, Arduino, HTML & CSS)

## **CERTIFICATIONS**

- Titans of CNC Titan 1-6M CAD Solidworks Certification
- Certified in Emergency First Response (P.A.D.I. 2022)