# **Brian Hou**

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## **OBJECTIVE**

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

## **EDUCATION**

Purdue University Sophomore, 2024 - 2026 (Expected)

Robotics Engineering Technology, BS Cumulative GPA: 4.0

Arizona State University Freshman & Sophomore, 2022 - 2024

Robotics Engineering, BSE Dean's List: 2022-2024, Cumulative GPA: 3.99/4.0

# WORK EXPERIENCE

**Robotics Design Engineer** (Summer Internship)

3H. Grand Enterprise Co., LTD.

May 2023 - August 2023

• Delivery robot 3D modeling, planning, prototyping, construction

• Managed company-wide IT issues for optimal software/hardware performance

Skills: Solidworks, Computer Technician, Robotics Design

## PROJECT EXPERIENCE

# **Mechanical Design Engineer**

May 2023 - Present

Purdue ACM SIGBots

- 3D design using Autodesk Inventor for robotics mechanisms
- Directed robot design and construction with a focus on precision and innovation

Skills: Mechanical Design, Autodesk Inventor, 3D Printing, Machining

# Project Lead & Mechanical Lead

May 2022 - May 2024

**PYRO Robotics** 

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

**Skills:** Mechanical Design, Solidworks, Robotics Engineering, 3D Printing, 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 Inventor, 3D Printing, Machining
- Mechanical Skills: Machining (mechanical lathe & mill) and hand tools
- Programming languages (C/C++, Java, Python, HTML & CSS)

## **CERTIFICATIONS**

• Solidworks CSWA-Mechanical Design