

Brian Hou

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OBJECTIVE

Seeking a dynamic co-op/internship position as a hardware design engineer, specializing in designing, analyzing, and building mechanical equipment focused on automation

EDUCATION

Purdue University

BS in Robotics Engineering Technology

Sophomore, 2024 - 2026

Cumulative GPA: 4.0/4.0

Arizona State University

BSE in Robotics Engineering

Freshman & Sophomore, 2022 - 2024

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

WORK EXPERIENCE

Robot Design Engineer (Summer Internship)

May 2023 - August 2023

3H. Grand Enterprise Co., LTD.

- 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
 - Directed robot design and construction with a focus on precision and innovation
- Skills: Mechanical Design, Autodesk Inventor, 3D Printing, Machining

Custom FPV Drone

Aug 2023 - Present

Personal Project

- Designed a custom 5 inch FPV drone
- PID tuning and control

Skills: Solidworks, Product Design, Embedded Systems, PID Control

Project Lead & Mechanical Lead

May 2022 - Jan 2024

PYRO Robotics

- Project Lead & Mechanical Lead of the Rossum Rumbler and PYRO robotics
- 3D design using Solidworks for complex mechanisms such as PTO drivetrain
- Responsible for robot designs, construction, testing, and troubleshooting

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

Custom Keypad

Jan 2023- Aug 2023

Personal Project

- 6-key keypad designed using Solidworks, Arduino Pro Micro, custom PCB
- Reprogrammable to any desired key using the Arduino IDE

Skills: Solidworks, Product Design, PCB Design, Embedded Systems, Programming

SKILLS

- 3D Mechanical Computer-Aided Design: Solidworks, Autodesk Inventor, 3D Printing
- Mechanical Skills: Machining (mechanical lathe & mill) and hand tools
- Programming languages (C/C++, Java, Python, HTML & CSS)
- PLC, Industrial Controls, Industry 4.0, Logic Controllers

CERTIFICATIONS

- Solidworks CSWA-Mechanical Design