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 Sophomore, 2024 - 2026
BS in Robotics Engineering Technology GPA: 3.4
Arizona State University (Transferred) Freshman & Sophomore, 2022 - 2024
BSE in Robotics Engineering Dean's List: 2022-2024, GPA: 3.99

WORK EXPERIENCE

Robot Design Engineer Internship (Summer) May 2023 - August 2023
3H. Grand Enterprise
• Delivery robot 3D modeling, planning, prototyping, construction
• Managed company-wide IT issues for optimal software/hardware performance
Skills: Solidworks, Computer Technician, Robotics Design

Incoming Mechanical Engineer Technology Co-op (Fall Semester) Aug 2024 - Dec 2024
General Electric Appliances
• New Recreational Living product design (RVAC, tankless water heater, Furnace)

PROJECT EXPERIENCE

Mechanical Design Engineer May 2023 - Present
Purdue ACM SIGBots
• 2024 World Champions, Design Award, Community Award
• 3D design using Autodesk Inventor, Solidworks
• Responsible for robot design and construction with a focus on precision and innovation
Skills: Mechanical Design, Autodesk Inventor, Solidworks, 3D Printing, Machining, C++

Project Lead & Mechanical Lead May 2022 - April 2024
PYRO Robotics
• Project Lead & Mechanical Lead of the Rossum Rumblers 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++

Personal Projects Jan 2019- Present
Custom FPV Drone, Custom Keypad, Go-Kart
• Custom 5 inch FPV Drone for acrobatics and cinematic photography
• 6-key keypad designed using Solidworks, Arduino Pro Micro, custom PCB, PID tuning
• 10th Grade personal project on Go-kart, able to withstand up to 80 kg at 15 mph
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 Dec 2023