Justin Pullman

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OBJECTIVE

To secure an Aerospace Engineering internship that allows me to utilize my skills and experience in design, fabrication, and leadership summer 2023.

EDUCATION

Iowa State University, Ames IA — *Aerospace Engineering Bachelors of Science* Anticipated Grad: December 2023

- GPA: 3.25 / 4.00

Bradley University, Peoria IL — *Mechanical Engineering Major* August 2019 - May 2021

EXPERIENCE

Robotics Coach — Peoria Academy, Peoria, IL August 2019 - December 2019

- Taught the engineering design process and communication skills through hands on activities
- Encouraged critical thinking through asking open ended questions
- Motivated creativity by rewarding out of the box thinking
- Facilitated brainstorming sessions through various activities and thought exercises
- Developed time management and task completion skills

Natural Gas Mechatronics Intern — Caterpillar, Peoria, IL June 2018 - August 2018

- Utilized Matlab and Simulink to run engine model test configurations
- Assisted with engine control module debugging using custom software
- Learned how engine models were developed by working with industry engineers
- Demonstrated attention to detail by tabulating GPS data from a variety of sources and formats.
- Contributed to the development of a new diagnostic device for data collection

LEADERSHIP & ACTIVITIES

Founding member — Autonomous Robotics Club (ARC), Ames, IA August 2022 - Current

- Designed a robot using Autodesk Inventor to compete in the Intelligent Ground Vehicle Competition
- Developed a virtual robot using Gazebo and ROS2 (Robot Operating System)
- Conducted design reviews and planned task breakdowns

Lab Manager, Mechanical Lead, Team Leader — FIRST Robotics Team, Peoria, IL August 2015 - May 2019

- Led a 30 person team in the design and fabrication of a 150 lb robot that won 8th of 55 at competition.
- Utilized 3D printing, CNC Mills, and various other fabrication tools
- Led the design and fabrication of a new 3D printable drive system
- Risk management through developing safe practices
- Safety protocol instruction through regular safety briefings and assessment
- Conducted weekly design reviews and planned task breakdown
- Facilitated Communication between departments

SKILLS

- SolidWorks, Autodesk Inventor, Autodesk AutoCAD, Creo, and Ansys
- Programming languages: Python, Matlab, C++, C, Yaml
- Linux, Robot Operating System, Gazebo
- Arduino and Raspberry Pi

PROJECTS

Swerve Drive — *Modular 3D printed independently controls wheels*

- Rapidly prototyped and designed utilizing Solidworks and Autodesk Inventor
- Demonstrated the engineering design process through 5 iterations of the design

Robotic Interface - *Touch screen relay for robot maintenance status*

- Programmed two graphical user interface with Python and Tkinter
- Utilized low frequency radio to communicate between Raspberry Pi