Christopher Hall

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Education

PURDUE UNIVERSITY WEST LAFAYETTE **MAY 2022**

- Bachelor of Science, Mechanical Engineering
- GPA: 3.3
- Activities: EPICS VETS, EPICS GAPS, BJJ Club, Habitat for Humanity, Triathlon Club, FIRST

ELECTRONICS AND CODING SKILLS

- Assembled devices with Coral AI Dev Board, Arduino, NodeMCU, MyRIO, FIRST Electronics
- Programming: C++, C#, HTML, JavaScript, Python, MATLAB, ARM Thumb Assembly, TensorFlow

Engineering Experience

COOP | HONEYWELL AEROSPACE | SOUTH BEND, IN **AUGUST 2019 – MAY 2021**

1st Rotation - Lab

- Designed a tool crib so tools required for testing could be located easily
- Investigated experimental data to clarify differences between bolts being tied with different washers
- Collaborated with other test engineers to improve work productivity using Excel and VBA
- Wrote a program with Python using computer vision (OpenCV) to calculate moments of valve arms

2nd Rotation - Design

- Redesigned valves in NX to reduce wear from friction for RS-25 Rocket
- Updated fuel map in NX to included changes made in the CJ1000 layout

3rd Rotation - Project

- Created auto generated plots from excel data with python to study faulty engines
- Organized projects from start to close through Siemen's Teamcenter

INTERNSHIP | SMITH & RICHARDSON | GENEVA, IL **MAY 2018 – AUGUST 2018**

- Generated CAD models for customer products using Solidworks
- Translated from model to G-code utilizing Esprit so CNC machines could manufacture parts
- Maintained company website to appeal to customers visiting online

Research Experience

VERTICALLY INTEGRATED PROJECT | WEST LAFAYETTE, IN **AUGUST 2020 – DECEMBER 2020**

- Studied the application of SERS technique in detecting COVID-19 virus
- Collaborated with a team of undergraduate students and graduate student advisors to attack problem
- Drew CAD model for nano particle spray device to be attached to a robot

Projects

SENIOR DESIGN **JANUARY 2021 – PRESENT**

- Developed a TV mount that autonomously adjusted height and rotation for optimal viewing experience
- Applied TensorFlow and the Coral AI board to accomplish facial recognition
- Utilized controls and systems theory to maintain accurate and steady motor adjustments