Matthew O'Connor

U.S. Citizen
(630) 640-7260
oconno72@purdue.edu
matthewthomasoc.github.io

EDUCATION

Purdue University, West Lafayette, IN — May 2022
Bachelor of Science in Aeronautical and Astronautical Engineering
GPA: 3.26 / 4.00

Relevant Coursework: Aeromechanics, Computer Graphics, Engineering Technology
Technical Skills: CATIA, SolidWorks, MATLAB, C++, Written Documentation

WORK EXPERIENCE

Fresh Market, Geneva, IL (630) 845-4095 — June 2019 – August 2019
Produce Clerk
30 Hours/Week
$10/Hour

- Provided quality customer service for pricing, produce, and store products
- Organized, stocked, and rotated store displays to ensure freshness of produce
- Responsible for maintaining store safety and policy during closing hours

DESIGN PROJECTS

Attitude and Heading Reference System (AHRS), Personal Project — August 2019 – Current

- Integrated and filtered inertial measurement sensor data to find absolute position and orientation in the inertial frame of reference
- Calibrated and troubleshooted sensors using large data sets from microcontroller data acquisition to increase accuracy and precision
- Utilized MATLAB to analyze data and create 3D visualizations of the position of the device over time

CATIA Product Reverse Engineering, Purdue University — August 2019 – December 2019

- Accurately identified and reverse engineered industry standard hardware
- Utilized CATIA to accurately model complex features and geometry
- Generated sophisticated 2D Multiview production drawings complying with industry standards and accurately animated digital mockups

MATLAB Thermocouple Design Analysis, Purdue University — August 2018 – December 2018

- Developed recursive algorithms to assess noisy technical data
- Generated piecewise regression models in MATLAB using algorithm data
- Applied developed models to evaluate large data sets in order to determine an optimal cost-benefit analysis

AFFILIATIONS

Students for the Exploration and Development of Space (SEDS), *Hybrid Team* — September 2019 – Present

- Coordinated in an Avionics Subteam of 22 members to develop avionics and recovery systems for the Purdue Space Program Hybrid Propulsion Rocket
- Designed and 3D printed integral avionics bay structural components using SolidWorks

Theta Tau, *Professional Engineering Fraternity Scholarship Chair* — September 2019 – Present

- Managed and organized crucial academic server archives for over 40 members
- Assisted members in facilitating a professional and academic environment