

Joshua Auyeung

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EDUCATION

Rutgers University – New Brunswick Bachelor of Science, Mechanical Engineering (GPA: 3.6) May 2023
Relevant Courses: Materials Processing, Statistics, CAD, Differential Equations, Multivariable Calculus

WORK EXPERIENCE

Veo, New Brunswick, NJ May 2021 – January 2022

Maintenance Technician

- Diagnosed fleet vehicles for mechanical and electrical issues to maintain over 700 functioning units available for customer use
- Coordinated with Field Specialists to develop organized inflow and outflow procedures for fleet vehicles requiring maintenance such that repair times were reduced by 20 percent
- Audited internal maintenance systems weekly to ensure vehicle repair history and inventory of replacement parts were accurate

Honda Manufacturing of Alabama, LLC, Lincoln, AL January 2021 – May 2021

Co-op Associate – Product Engineering

- Conducted Root Cause Analysis (RCA) with Paint Department to solve coating quality issues while recovering \$350,000 and 9,500 associate-labor hours lost to post-production vehicle repairs
- Reviewed product design specifications, tolerances, and past-problem history for Frame Assembly and Parts Quality Department to carry out Failure Modes and Effects Analysis (FMEA) and issue new reoccurrence prevention strategies
- Supported cross-functional investigations with Materials Analysis Team by performing destructive and non-destructive testing to evaluate material properties
- Repaired 280 vehicles on Production Line to assist Frame Assembly Department regarding asymmetric appearance issues found by consumers survey reports

TECHNICAL PROJECTS

Portable Display (Autodesk Inventor) July 2022

- Recycled an LCD screen to create a portable second display using an LCD controller board, rechargeable power supply and wireless HDMI receiver
- Designed a versatile and protective case in Autodesk Inventor to safely house the electronics before creating it with additive manufacturing methods

Kitchenware Drawer Inserts (Autodesk Inventor) June 2020

- Designed drawer inserts which improved accessibility and storage of kitchen knives. The design protects and organizes kitchen knives while factoring in variables such as shape, size, quantity, usage, and risk level.

Wireless Fluid Gauge (Arduino) June 2020

- Built a wireless fluid gauge using an Arduino, an HC-05 Bluetooth module, and an HC-SR04 Ultrasonic sensor to monitor fluid levels in a household heating system
- Programmed an accompanying mobile application using MIT App Inventor to track fluid levels in real-time and give regular updates to the user at his or her requested time interval

SKILLS

Proficient: Solidworks, Autodesk Inventor

Familiar: Scanning Electron Microscopy (SEM), Energy Dispersive Spectroscopy (EDS), Differential Scanning Calorimetry (DSC), Tensile Testing, Thermal Chamber Testing, Corrosion Chamber Testing, Rockwell Hardness Testing, Metallurgical Sample Preparation, Soldering, MATLAB, Machine Shop Production Techniques

ORGANIZATIONS

Rutgers Chapter of American Institute of Aeronautics and Astronautics (AIAA) September 2020 – December 2020

RU Airborne – Structures and Design Team

- Designed and modeled aircraft parts using Solidworks according to AIAA's annual Design, Build, Fly (DBF) competition requirements
- Produced a 3D proposal model and report for DBF's first-round screening where the chapter's submission achieved the highest score of all 117 participating universities worldwide

VOLUNTEER EXPERIENCE

Monmouth County Parks System, Monmouth County, NJ September 2015 – June 2019

Student Volunteer Organizer

- Assisted park management in organizing fellow volunteers to ensure events ran smoothly
- Teamed up with independent vendors to set up, supervise, and disassemble public attractions
- Scheduled regular cleanings to protect park property and remove harmful litter

AWARDS

Dean's List – Maintained at least a 3.50 minimum GPA Fall 2019 - Present

Scarlet Scholarship – Awarded \$3,500 annually for maintaining a 3.25 minimum GPA Fall 2019 - Present