
PROFESSIONAL EXPERIENCE

- | | | |
|---|--------------------------------------|------------------------|
| Robotics Deployment Engineer, Contract | Amazon Robotics | July – Nov 2020 |
| <ul style="list-style-type: none">Decreased production errors by 20% and launched site ahead of schedule by 1.5 months by diligently managing multiple teams of third-party assemblers for the installation of stations and drives.Established Allen Bradley software for robotic safety systems and set up Cognex vision for station recognition.Analyzed, debugged, & ensured that all robotic environments met Amazon Robotics' GD&T requirements.Originated solution for robotic drive awakening procedure that cut procedure time from 5 to 2 hours per floor. | | |
| Hardware/Systems Lead, Capstone | Glaukos | Sept – May 2020 |
| <ul style="list-style-type: none">Enhanced fatigue testing process for new product development by creating a periorbital simulator test fixture with strong repeatability reducing the time needed to test the product.Engineered a contact force system that can be moved into position, apply, and measure force using C++.Developed a system to apply a force onto the periorbital region and a servo to simulate hand rubbing motion.Built a system that collects and records data from the load cell using an ADC, Arduino, and DAQ.Validated material and design choice structural stability with finite element analysis simulation on test fixture. | | |
| R&D Controls Engineer, Intern | Philips Respironics | Jun – Aug 2019 |
| <ul style="list-style-type: none">Reduced test process from 4 hr to 30 min by automating test procedures through a developed program.Facilitated multiple design reviews to solicit feedback and offer insight into design to meet requirements.Collaborated with test engineers to gage usability requirements ensuring compatibility of test fixture.Developed code for automated actuator controller using LabVIEW graphical programming environment. | | |
| Manufacturing Engineer, Intern | Senior Aerospace Jet Products | May – Aug 2018 |
| <ul style="list-style-type: none">Integrated tools into organized ERP program that manages, tracks, and allows for accountability of tools.Exceeded project goals by completing one-year project plan in tooling management program in three-months.Optimized manufacturing workflow by implementing tool storage identification and serialization system.Modified past tool designs using Solidworks and PDM to aid in the production of engine mounting solutions. | | |

EDUCATION

- | | | |
|--|--------------------------------|-----------------------------|
| San Diego, CA | University of San Diego | Sept 2016 – May 2020 |
| <ul style="list-style-type: none">BS/BA in Mechanical Engineering, Major GPA: 3.28 - Deans List, May 2020.Undergraduate Coursework: Computational Fluid Dynamics (CFD), Finite Element Analysis (FEA), Introduction to Robotics, Human Factors Engineering, Machine Shop Practices, Manufacturing Processes, Fluid Mechanics.Involvements: Theta Tau Professional Engineering Fraternity, American Society of Mechanical Engineers.Leadership: Glaukos Capstone, Hardware and Systems Lead; Theta Tau, Corresponding Secretary. | | |

PROJECTS

- Spinal Surgery Tool** (2021). Designed interbody and inserter tool for posterior lumbar interbody fusion (PLIF) accommodating for insert and rotate procedure and maintaining biocompatibility and cleaning.
- Wobbler Engine** (2018). Awarded a 3rd finish with a minimum running psi of 1.3. Wrote detailed operation sheets, fabricated, and assembled all components for the wobbler engine.
- Tension and Compression Model** (2018). Conceptualized learning aid that provides a physical representation of tension and compression in a truss system. Produced via 3D prints and implemented into Statics courses.
- Emergency Response Vehicle** (2016). Designed chassis of vehicle on Solidworks and fabricated vehicle using low cost materials. Devised steering capabilities using Raspberry Pi to control power sent to each wheel. C++

LANGUAGES AND SKILLS

- Applications: ANSYS Fluent | AutoCAD | Agile | Git/Github | LabVIEW | MultiSim | Solidworks & PDM
- Programming Languages: C++ | Java | MATLAB | Python