
PROFESSIONAL EXPERIENCE

Systems Integration Engineer	Hewlett Packard Inc	March 2021 - Present
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- Created ink delivery system providing stable flow and accurate measurements for ink and pen development.
- Achieved 50% reduction in startup time through improved thermal distribution and PID controller for test bed.
- Developed a Python script to analyze and visualize thermal data values from an infrared camera (IR).
- Revamped legacy tool improving flow rate for the ink delivery system test and hysteresis in tool components.

Robotics Deployment Engineer	Amazon Robotics	July 2020 – Nov 2020
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- Reduced Amazon Robotics site production errors by 20% and exceeded launch deadline expectations by 30%.
- Implemented, configured, and deployed Alley Bradley software for robotic safety systems and Cognex Vision.
- Validated & verified all robotic installations met requirements in a regulated and controlled environment.
- Originated automation solution for robotic drive awakening process and reduced process time by over 50%.

Hardware/Systems Lead, Capstone	Glaukos	Sept 2019 – May 2020
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- Fabricated proof of concept for a periorbital simulator to enhance fatigue testing for product development.
- Formulated Design of Experiments (DoE) to ensure strong repeatability and efficiency of test fixture.
- Developed and automated data collection and testing processes from a load cell with an ADC, Arduino & DAQ.
- Validated stability of material and design choices with finite element analysis simulation on test fixture.

R&D Controls Engineer, Intern	Philips Respironics	Jun 2019 – Aug 2019
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- Improved QA process time by 80% through automation of test procedures for ventilator control system.
- Facilitated multiple design reviews to solicit feedback and offer insight into design to meet specifications.
- Collaborated with test engineering team to gauge usability and compatibility of test fixture with test protocols.
- Developed code for National Instruments cDAQ system using LabVIEW graphical programming environment.

EDUCATION

San Diego, CA	University of San Diego	Sept 2016 – May 2020
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- 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 with mechanism design for cleaning and biocompatibility.
- **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 vehicle on Solidworks and Raspberry Pi. C++

LANGUAGES AND SKILLS

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