Ishan Jandaur

ishan.jandaur@gmail.com | (408) 504-2739 |
https://www.linkedin.com/in/ishanjandaur/ | https://ishanjandaur.github.io

EDUCATION

California Polytechnic State University – San Luis Obispo
Bachelor of Science in **Mechanical Engineering,** June 2022

SKILLS & ABILITIES

- SolidWorks
- Project Management
- DFM/DFA
- Root Cause Analysis
- Process/Design FMEA
- DOE
- Python/RStudio
- 3D Printing
- Microsoft Office

WORK EXPERIENCE

Lyten Inc. **San Jose, CA**
Product Design Engineer **January 2022 – Present**

- Spearhead roadmap to achieve first Li-S 250 Wh/kg 21700 cylindrical cell on the market
- Effectively balance R&D efforts while meeting multi-million dollar contract deliverables
- Help integrate and optimize MES processing flow to ensure proper processing and material traceability
- Collaborated with vendors to define equipment specifications for mass production at multiple GWh factory
- Engineered custom fixtures and methods to test safety, robustness, and manufacturability of cap and can redesigns
- Drive material and vendor selection to comply with stringent weight/performance/sourcing requirements
- Manage tooling and material conversion to permit efficient switchover for various battery size formats

Associate Product Design Engineer **December 2022 – December 2023**

- Led design of first cylindrical cell designs (18650, 21700) pioneering new lithium-sulfur chemistry
- Conducted DFM, PFMEA, and DFA to assess feasibility of designs
- Develop QC metrics and methods for ensuring target specifications meet tolerance requirements
- Modified lithium-ion battery manufacturing equipment to scale from 0 to 100 finished cylindrical cells pers shift with 80% yield
- Conducted Site Acceptance Testing on resistance spot weld, grooving, crimping machines by creating and validating test criteria
- Create model and validate improvements in cell design by performing DOEs and presenting/analyzing cell electrochemical data using SQL and R Studio
- Lead failure analysis to determine root cause of battery thermal runaway and implement corrective actions
- Release first BOM and drawing package for cylindrical cell through Arena PLM, SolidWorks PDM, and NetSuite

Flex **Milpitas, CA**
Project Engineer Intern **June 2022 – September 2022**

- Collaborated with customers plan assembly lines in New Product Introduction to ensure high part yield
- Developed manufacturing instructions and trained operators improve assembly and rework processes
- Worked with customer to structure and scrub BOM (800-line items) for production work order release
- Established routing for shop floor data management system to track components and monitor consumption
- Performed root cause analysis to determine how defects were occurring in various stages of assembly

Enovix Corporation **Fremont, CA**
Product Engineering Intern **June 2021 – September 2021**

- Worked in a start-up to further develop and test lithium-ion battery architecture to increase energy density by 5%
- Utilized various optical and measurement tools to analyze results from proof-of-concept experiments
- Conducted tests to validate hermetic sealing and laser cutting/welding capabilities through an outside vendor
- Facilitated installation of Instron and devised strength testing of stainless-steel constraints
- Qualified Instron with high statistical significance to translate weld strength pull test from previous machine
- Designed experiment to establish specifications for maximum allowable clamp force before failure occurs
- Audited/characterized multiple processes in manufacturing line to machine fixtures simulating these operations
- Wrote cross-sectioning, battery assembling, and Instron testing work instructions to guide technicians

PROJECTS

Senior Design Animatronic Project – Cal Poly SLO **September 2021 – June 2022**

- Cooperated with 3 students to design a robot that replicates realistic movement of a macaw bird
- Designed wing flapping/extension, beak movement, head/neck rotation, and spinning of base
- Utilized SolidWorks to custom design and 3D print mounts, linkages and aesthetic components
- Budgeted sensors, materials, and manufacturing processes to keep cost of prototype under $300
- Produced documentation to teach robotics to students with minimal engineering knowledge

NDA Medical Device Project **January 2022 – June 2022**

- Researched and implemented various sensors to continuously monitor force required to dissect human tissue
- Integrated mechanical components into 3D printed fixture to develop fixture to simulate surgical procedure
- Used force transformations and FEA to calculate axial force based on compression forces acting on tool
- Converted data from Arduino to .csv file to easily analyze and graph patterns in data