# Ishan Jandaur

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Portfolio: https://ishanjandaur.streamlit.app

## 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
- Collaborate with vendors to define equipment specifications for mass production at multiple GWh factory
- Engineer 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
- Led 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 to plan assembly lines in New Product Introduction while ensuring high part yield
- Developed manufacturing instructions and trained operators in 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