JOSE PUGA

Mechanical Engineer | San Jose, CA | (669) 667-9302 | LinkedIn | Portfolio | jpugacolin@gmail.com

EXPERIENCE

KLA Corporation - Associate Test Engineer 2 San Jose, CA Jul 2024 – Present

BBP – Wafer Inspection Systems

- Performed testing and troubleshooting across 29xx BBP wafer-inspection tools to ensure high-metrology accuracy and low downtime by diagnosing optical, mechanical, and electronic-level issues.
- Optimized test/calibration procedures validated design-recipe specifications, and documented results per quality standards.

RAPID – Reticle Inspection Systems

- Performed precision laser and optical alignment of illumination paths, imaging modules, beam modules, and optimizing focus and signal stability while troubleshooting system-level issues across optics, electronics and motion subsystems.
- Collaborated with optical, electrical, and software teams to validate system performance and resolve tool bring-up issues.

Cratus Technology – Mechanical Design Engineer – Contract San Jose, CA Mar 2023 – Dec 2023

- Developed the Smart Light Switch System, covering enclosure design, electrical/firmware integration and mechanical simulations to ensure manufacturability and reliability.
- Developed 3D CAD assemblies and drawings while performing structural, vibration, and thermal simulations to validate performance under real-world loads.
- Performed firmware flashing/debugging, and electronics validation to ensure stable system performance.

EDUCATION

San Jose State University San Jose, CA August 2020 - May 2024

Bachelor of Science, Mechanical Engineering

TECHNICAL SKILLS

Programming Languages: C++ (Embedded Systems, Real-Time Controls, HMI Programming), MATLAB (Control Design, Data Analysis, Simulink), Python (Data Processing, OpenCV)

Engineering Design & Controls: Solidworks, Solidworks Simulation, ANSYS Mechanical, Simulink (System Modeling, Control Design, Sensor Filtering & Dynamics Simulation), KiCAD9, Altium Designer, LTSpice/QSPICE, Oscilloscope/Function Generator.

Manufacturing: Additive Manufacturing, Sheet Metal Fabrication, Milling, Turning, ASME Y14.5 GD&T – Working Knowledge.

PROJECTS & AWARDS

Automated Seatbelt System for Solar ATN — Senior Project of the Year 2024

- Engineered the linear-guide mechanism and electrical panel using full mechanical design workflow—3D CAD, assemblies, drawings, and ANSYS structural/thermal analysis.
- Built a custom PCB using Altium that integrated AC/DC Power, HMI, H-Bridges, and ATmega2560 Chip.

Cadence Latinx Students in Technology Scholarship - $5,000

- Competitive award from Cadence Design Systems recognizing academic excellence, innovation and leadership in engineering, and selected as top recipient in a national competition.