Lemuel Lin

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Skills

Programming Languages C, C++, Python, MATLAB
Software ANSYS, SolidWorks, CATIA, AutoCAD, Inventor

Work Experience

Application Engineer October 2018 - Present
TCT Circuit Supply Placentia, CA

- Developed tests to provide optimized PCB drill process, and integrated to customer sites
- Collaborated with an engineering team internationally, perform system-level testing on an IoT smart warehouse system
- Led a backup board cost-saving project, which saved material costs by 65% with improved drill quality
- Designed programs for CNC drilling machines, performed drilling, routing, and hole accuracy measurements
- Inspected, measured and interpreted data of micro-sections of PCBs to check for conformity and defects
- Audited drilling machines, performed analysis on process robustness, machine reliability, maintainability, and safety

Biomedical Research Assistant November 2016 - September 2017
Chang Gung University Department of Electrical Engineering Taoyuan, Taiwan

- Researched in medical image processing and deep learning fields
- Integrated existing MATLAB programs to process 3D medical images, retrieved the vascular stent and rotated in 3D view
- Built convolutional neural network and machine learning model to identify and classify objects using TensorFlow

Technical Marketing Intern July 2015 - August 2015
Ford Motor Company Taoyuan, Taiwan

- Led an engineering project to provide a feasible solution to improve the backseat ergonomic design of model KUGA
- Conducted market research to enhance Ford's brand image by innovating the customers experience, fostering a greater sense of understanding between Ford and its customers

Projects

Comparison of Methods for Generating the Line Envelope on a Four-Bar Linkage

- Proposed Instant-Center method, locating the normal line of coupler passing through instant center to determine the envelope on a four-bar linkage
- Verified the effectiveness of Instant-Center method over the traditional Envelope-Theorem approach using MATLAB

Analysis of Foam Blade Deflection Under High Speed Rotation

- Simulated blade deflection under high speed rotation using ANSYS
- Captured blade movement using high speed camera, then processed the images to determine deflection
- Built a mathematical model based on large deformation theory using MATLAB

Compression Mechanism Structure Design

- Designed a four-bar linkage toggle mechanism, magnifying input load by 28.5 times
- Built the toggle mechanism model in consideration of mechanical design and mechanics of materials using SolidWorks

Analysis of Airplane Landing Gear

- Constructed the landing gear 3D model using ANSYS
- Simulated the force distribution and deflection of the landing gear using different types of meshes

Education

Master of Science in Power Mechanical Engineering September 2017
Bachelor of Science in Power Mechanical Engineering June 2015
National Tsing Hua University Hsinchu, Taiwan

- Ranked 33rd in Engineering Technology from 2018 QS Ranking (CMU ranked 31, UCLA 35)