Juan Jara

San Jose, CA
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EDUCATION

Masters in Mechanical Engineering, Nagoya University, Japan — September 2016 - August 2018
Thesis: Acceleration of Topology Optimization by Image Processing

B.S Mechanical Engineering, University of California, Davis, USA — September 2011 - June 2016

EXPERIENCE

Research and Development Mechanical Engineer
Qualitau, Mountain View, CA — November 2018 - Current

Led R&D for mechanical systems, enhancing durability and cost efficiency in manufacturing. Designed enclosures, brackets, and jigs for PCB components with a focus on DFM/DFA standards. Improved connectivity and reduced strain through cable management, ensuring compliance and long-term reliability. Managed engineering change orders, generating 100+ revisions to boost product reliability and minimize manufacturing errors. Maintained BOMs for 12,000+ part assemblies, streamlining tracking and reverse engineering. Produced precise technical drawings using GD&T, improving manufacturability and assembly accuracy.

Engineering Intern
Rurok Industries, Manilla, Philippines — April 2018 - May 2018

Designed a topology-optimized component for a full suspension bicycle, reducing linkage mass by 20% while maintaining stiffness. Reported directly to the CEO, leading strategies to enhance efficiency and lower manufacturing costs through DFM implementation.

Researcher
Hyundai Research and Development, Davis, CA — September 2015 - June 2016

Designed an adjustable jig to test the power steering column, simulating cockpit ergonomics to analyze motor response sensitivity in the power steering system.

Assistant Shop Technician
Crocker Nuclear Laboratory - IMPROVE Air Quality Research Group, Davis, CA — June 2013 - August 2016

Conducted Failure Mode and Effects Analysis (FMEA), disassembled controllers, tested traces, and serviced O-rings and bearings for vacuum pumps. Traveled to 16 states for on-site field service, repairing over 1,000 air sampling controllers, pumps, and sub-assemblies while independently managing a nationwide air-sampling network with minimal supervision.

Engineering Intern
Intel Corporation, Sacramento, CA — June 2012 - September 2012

Contributed to a project aimed at enhancing headphone user experience by designing a prototype for tangle-free headphones and promoting new household product ideas during Northwestern University's Engineering Design and Communication course, gaining valuable experience in business model development.

SKILLS

- SolidWorks
- Autodesk
- Solid Edge
- Mastercam
- Rapid prototyping
- MATLAB, C, C#
- Max Cycling '74
- JIRA
- Asana
- CNC Machinery
- 3D Printing
- Fabrication: Welding, Milling, Lathing.
- Soldering
- Bilingual: English & Spanish
- Elementary Japanese
- Certified ISO 9001 Internal Auditor
- Troubleshooting and diagnosing hardware issues