Wilson Lam

El Monte CA 91732 • (626) 264-3213 • U.S. Citizen • Active Secret Clearance • wilsonqanda@gmail.com
Website: wilsonlam.github.io (Website Not Managed)

EDUCATION

University of California Los Angeles, Los Angeles, CA
    Master Degree in Mechanical Engineer   **[Sept. 2013 – June 2014]**
    Bachelor of Science in Mechanical Engineer   **[Sept. 2009 – June 2013]**

PROFESSIONAL EXPERIENCES

L3HARRIS Sylmar, CA   **[Aug. 2016 – Present]**
Project Engineer
- Conducted weekly meetings with Navy and reported directly to the program manager on the production line's status. Assign engineering task orders, organized reports, & oversaw the production line supervisors' shop order authorization & closure. Supported production line supervisors & quality leads, to keep them up to speed with production schedule.
- Select & assigned tow arrays for production line supervisors to refurbish modules. Provided GreenBelt process improvement guidance to reduce Takt Time to meet DCMA demands.

Prior Position at L3HARRIS

- **Sensor Engineer & Specialist Engineer –** Obtained GreenBelt training for lean manufacturing. Setup Kaizen events for production workers, management, contracts, and program managers. Created molds, fixtures, and test equipment to improve production yield rate.

Projects & Tasks at L3HARRIS
- Incorporated into a team of multiple electrical engineers as the sole design engineer tasked with designing DC converters & power supplies packaging from ideation to environmental testing and final production.
- Designed and setup test runs with transmitters over 3000V and recorded hydrophone data through LabView or custom made code.
- Designed, prototyped, manufactured, and successfully deployed a 1 mile plus deep sea transducer during sea test to verify FEA dynamic model and obtain TVR curves.
- Create drawings, BOM, work instructions, ATP, and CAD models for production.

SEAL SCIENCE INC. Irvine, CA   **[June 2015 – Aug. 2016]**
Mechanical Design Engineer
- Lead gasket and reinforced elastomer (metal insert/fabric layering) designs for major aerospace companies and military application
- Draft project plan, statement of work, and testing procedure for part verification as needed.
- Create engineering change order (ECO), Maintain Bill Of Material (BOM), and ISO 9001 Standards
- Ensure FDA (Food & Drug Administration) CFR (Code of Federal Regulations) Compliance for Material
- Draft Components and Models for Molding and Complete ASME Y14.5M GD&T for Manufacturability
- Perform Advanced Non-Linear Abaqus FEA on characterized compound mixtures under dynamic loads

NASA Orion Spacecraft Forward Fairing Seal Separation Design and Analysis   **[June 2015 – Present]**
- Advanced FEA for Service Module (SM) and Fairing Separation Design and Validation
- Forward fairing designed to aerospace specifications and industry standards
- Lead system level design of payload to fit and maintain performance structurally, mechanically, and thermally.

NASA Orion Spacecraft Umbilical Seal Design and Analysis   **[June 2015 – Present]**
- Design for highly dynamic deflection (0.5" to 3" X, Y, & Z relative motion) during launch and extreme temperature during SM and fairing separation.
- Review statement of work, draft project schedule, create models and drawing, perform Advanced FEA for Non-Linear Validation.

SpaceX Dragon High Temperature Ducts **[Oct. 2015 – Feb. 2016]**
- Organize manufacturing procedures for SpaceX high temperature ducts.
- Perform tests under FAA AC 20-135 Flammability Test (Burn Test Performed at 2000℉ for 15 minutes on Hyper-Elastic Materials)
- Product design to interface high deflection components to solid surfaces

FDA Title 21 CFR Sealing Products **[July. 2015 – Dec. 2015]**
- Design product in Catia and perform advance thermal, pressure, and dynamic loads simultaneously
- Advance Abaqus FEA on silicone rubber with spring insert vulcanized together

Lockheed AC-130 Gunship **[July 2015 – Dec. 2015]**
- Develop gun seal CAD assembly & Abaqus FEA on Multi-Layer Hyper-Elastic-Fabric Materials
- Draft FEA report on pressurized gun seal during deployment and motion

LEDCONN CORP. Brea, CA **[June 2014 – June 2015]**
Project Engineer
- Setup mass production line in new facility & get line ready for UL Listed induction audit
- Conduct meetings with client and engineers to discuss design projects
- Develop ECO, SOP, CAD drawings, and perform quality control on products
- Generate VBA/C++ Code to get product input from sales team and automatically generate sketches, BOM, and quotes for customer and production team

Prior Position at LEDCONN
 Project Specialist – Manage Engineers and machinists for the design, development, and testing of a prototype. Design enhancements / cost reductions trade studies
Projects at LEDCONN
- Communicate with oversea engineers on design and experimental results before mass production.
- Manage project production ranging from material gathering to BOM for project.
- Draft SOP guidelines, GT&D sketches, CAD files, generate FEA (stress, strain, facture, crack propagation, thermal, and optimization [for cost, material, and weight]), CNC files for machinist to manufacture products, and experimental tests.

SMALL ENGINEERING PROJECTS (PROTFOLIO) (Click on BLUE links below to see projects online.)

pocketRULER (Rapid-Prototyping with FDM)	**[Mar. 2014 – Jun. 2014]**
Project Panthra (Autonomous Delivery Vehicle)	**[Dec. 2012 – Jun. 2013]**
Project Magneton (Solid Freeform Fabrication (SFF) and Manufacturing)	**[Sept. 2011 – Dec. 2011]**

SKILLS

Programming/Software
- Proficient in: MATLAB, JavaScript, HTML, CSS, LABVIEW, UNITY
- Familiar with: C++, C#, Java
- CAD Software: Knowledgeable in static, non-linear, optimization, thermal, and dynamic FEA: (Link1)(Link2)
  - o Abaqus
  - o AutoCAD
  - o Comsol
  - o Catia V5
  - o Inventor
  - o Solidworks
- Unity Game Engine, Visio, jQuery, and Creative Suite (Dreamweaver, Photoshop, etc.)

Technical Skills
- Manufacturing: Mills, Lathe, CNC (MultiCAM 3000), Water-Jet Abrasive Cutter, Electrical Discharge Machining (EDM), Solid Freeform Fabrication (SFF type: 3D Printing, FDM, SLA), Bed-Mills, Table-Mills.
- Electronics: Sensors Testing and Installation, PID Control of Sensors and Actuators, Wire Soldering, Software-Hardware Integration, Integrated Circuit Designs, and Feedback Control.