
CAREER SUMMARY

I specialize in bringing high tech and innovative products from concept to production. I am an expert at CAD modeling and Finite Element Analysis using SolidWorks. I approach all of my designs with a holistic perspective, ensuring that the design can be easily manufactured and assembled. I approach all new products with a high degree of creativity and rigor. I have in-depth knowledge of designing complex mechanical systems for both consumer and industrial applications including a 7 DOF collaborative robot, end of arm tooling, and an industrial headset designed to meet IP67 and MIL 810F standards.

SKILLS

Technical Skills

GD&T per ASME Y14.5
New Product Design and Development
Design for Manufacturing (DFM)
Design for Assembly (DFA)
Materials Selection
Prototyping
Design of Experiments (DOE)
Management of offshore manufacturing
Design for Die Casting
Design for Injection Molding
Design for Machining

Software

SolidWorks (expert)
FEA using SolidWorks Simulation
Adobe Illustrator
Adobe Photoshop
Python (limited)

Leadership Qualities

Open Communication
Conflict Management
Adaptable Leadership Style
High degree of ethics
Fosters environment of trust and respect

WORK EXPERIENCE

BERKSHIRE GREY – 07/2018 – Present

Lexington, MA

Senior Mechanical Engineer

Berkshire Grey builds solutions that combine AI and Robotics to automate fulfillment in retail, eCommerce, and logistics by transforming pick, pack, and sort operations.

- Redesigned cornerstone picking technology to improve reliability and reduce cost.

RETHINIK ROBOTICS - 08/2015 – 7/2018

Boston, MA

Senior Mechanical Engineer

Rethink Robotics designs and manufactures flexible and cost-effective collaborative robots

- Expedited the transition from prototype to mass production
- Designed and tested a device to quickly change end of arm tooling (EOAT) without tools
- Created robust designs using SolidWorks and SolidWorks Simulation FEA
- Designed 3 Factorial experimental designs to validate new designs and design improvements
- Designed parts for various manufacturing methods, including CNC machining/turning, die casting, injection molding, extruding, sheet metal, compression molding, and RIM
- Focused on part function, DFM, DFA, and cost early in the design process
- Wrote work instructions and visual aid packages to ensure high quality assembly
- Conducted static and dynamic load analysis on entire robot assembly to identify weak links
- Solved thermal issues in robot arm using custom design heat sinks

SONETICS CORPORATION - 03/2011-02/27/2015

Portland, OR

Mechanical Engineer

Sonetics Corporation creates wireless team communication systems for harsh high noise environments

- Launched 4 new product lines, including the company's most comprehensive redesign of its core product, resulting in a reliable, waterproof, wireless communication headset
- The flagship redesign resulted in a 60% increase in revenue in the year following the product launch. This was the highest annual revenue since the company's inception
- Sole mechanical engineer responsible for all aspects of design, development, certification, reliability, and sustaining engineering
- Managed off shore vendors and manufacturers to ensure high product quality
- Identified and quickly responded to a customer's need by developing a unique and custom product directly resulting in the largest order in company history

SRS ENERGY09/2008-01/01/2011

Philadelphia, PA

Lead Reliability Engineer

SRS Energy is a start-up company which designs and manufactures aesthetically pleasing building-integrated photovoltaic modules

- Lead engineer responsible for testing and certification of novel thin film photovoltaic product
- Coordinated UL testing of the PV module resulting in the first certified photovoltaic roof tile
- Designed and implemented comprehensive test program for a photovoltaic product including creating test methods, sourcing test equipment, and performing root cause failure analysis
- Assisted in set-up a new manufacturing facility by designing fixturing, developing processes, and qualifying new equipment
- Ensured readiness of manufacturing facility for UL audit and ICC-AC010 quality inspection.
- Designed new products and concepts in SolidWorks and created photorealistic renderings
- Created 3D models and GD&T drawings of our product and equipment using SolidWorks

ARIES ELECTRONICS - 01/2008-08/2008

Bristol, PA

Product Engineer

- Automated the CAD modeling and drawing creation of a major product line using a VBA rule based program with SolidWorks greatly reducing the engineering time per order
- Designed engineer-to-order chip scale, test, and burn in sockets using SolidWorks
- Trained associates on high speed CNC driller/router

HONDA OF AMERICA MANUFACTURING

East Liberty, OH

Product Development Engineer

02/2007-01/2008

- Worked with R&D in planning stages of vehicle development to ensure design feasibility
- Conducted investigations on the manufacturing floor to determine root causes of failures
- Developed countermeasures to design and manufacturing issues during both product development and production stages
- Reviewed 2D and 3D models in CATIA to identify any potential design weaknesses

WOLF APPLIANCE CO., LLC

Fitchburg, WI

Reliability Engineering Co-op

05/2005-12/2006

- Designed, built, and operated test fixtures to simulate life cycle testing of new components
- Used LabVIEW, and Fieldpoint data acquisition systems to track life cycle tests
- Programmed PLCs (Programmable Logic Controllers) using RSLogix ladder software
- Created a database using MS Access to organize and report on all returns from the field

ERIK'S BIKE SHOP

Madison, WI

Head Bicycle Mechanic

03/2003-05/2005

- Employed problem-solving skills to complete difficult bicycle repairs
- Trained new employees on the duties of a bicycle mechanic

PATENTS/AWARDS

[US20160100238A1](#) - Ruggedizer for communications headset (application)

[US20160007112A1](#) - Restricted ball and socket joint for headset ear cup (Grant)

[USD790506S1](#) - Communication headset (Grant)

EDUCATION

UNIVERSITY OF WISCONSIN – MADISON – B.S. MECHANICAL ENGINEERING

Madison, WI

B.S. Mechanical Engineering 01/2002 – 12/2006

Relevant Course Work: Mechanics of Materials, Electronic Circuits and Power Conversion

Certified SolidWorks Professional – Advanced Surfacing

Certified SolidWorks Professional – Sheet Metal

REFERENCES

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