YIMING QIANG (HELEN)

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EDUCATION

University of Michigan – Ann Arbor, MI *2013.9-2017.4*

B.S.E. in Industrial and Operational Engineering & Mechanical Engineering *GPA: 3.76/4.00*

- **Honors:** University Honors, Fall 2013, Winter 2014, Fall 2014, Winter 2015, Fall 2015, Winter 2016
  Dean's List Recipient, Fall 2013, Winter 2014, Fall 2014, Winter 2015, Fall 2015, Winter 2016
- **Skills:** C++, Matlab, SolidWorks, SQL, VBA, 6σ Green Belt, IBM-SPSS, ProModel, SMPS, LabView, German
- **Courses:** Linear Statistic Models, Simulation, Optimization, Operation Modeling, Data Processing, Quality Engineering, Manufacture Process & Design, Programming, Mechanical Behavior of Materials, Fluid Mechanics, Dynamics & Vibration, Solid Mechanics, Thermodynamics, Electrical Circuits

EXPERIENCE

Brose North America – Auburn Hills, MI *2016.6 - 2016.8 & 2015.5 - 2015.7*

- Developed & conducted a series of component level experiments for vehicle seat structures and functions
- Combined the component testing results with FEA model to replace the costly full seat crash test for customers
- Wrote a paper review of testing methodologies for seat safety 'Submarining' study
- Customized & validated new test protocols of functionality, durability and safety of vehicle seats for customers
- Optimized & investigated the design of the new Easy Entry featured seat: Memory Stone
- Designed & conducted experiments to control corrosion resistance quality and strength of seat components

Bosch Automotive Diesel System Co., Ltd – Wuxi, China *2014.5 - 2014.8*

- Conducted quality control studies in improving the Oil Pump, Common Rail and Injector for engines
- Compiled & analyzed Diesel Vehicle Profile Data in Asia-Pacific area to support marketable product design
- Investigated, tested and solved the Oil in Fuel leakage in the diesel pump to improve the fuel efficiency of the engine & reduce customer complaints

University of Michigan,– Ann Arbor, MI

Center for Healthcare Engineering and Patient Safety *2016.8 - now*

- Investigated the patient scheduling system for Metabolism, Endocrinology & Diabetes clinic
- Optimized clinical utilization and patient satisfaction by analyzing patients scheduling data using SQL

Lay Walter E Automotive Engineering Laboratory *2014.9 - 2016.4*

- Investigated the formation and content of engine exhaust with simulation runs for various working conditions
- Tested & analyzed reliability of sensor in the exhaust system using GPF, SMPS and Smoke meter for Chrysler
- Analyzed soot characters from exhaust gas to minimize the negative impact on the engine and atmosphere

University of Boston, Material Science Laboratory – Boston, MA *2012.6 - 2012.8*

- Investigated the relationship between the conductivity of the material and the bond angle of C chain
- Modeled the quantum energy inside newly developed materials Tt and PTH to estimate economical values

Charity and Community Service Commitment *2011.9 - now*

- Building Manager of regional Habitat for Humanity, in charge of fundraising, social network, safety guarantee for international students team to built legal and safe shelters in undeveloped area in Yunnan, China
- Vice President of Marine Dream Environmental group, promoted and educated local community of garbage classification system and won the top 10 in AISEC national competition in China
- Ambassador of Society of Women Engineers, organized charity concerts to fund tuition for girls in need

PROJECTS

University of Michigan – Ann Arbor, MI

Customized Instrumentation on Sub-dermal Contraceptive Implant Assistive Device *2016.9 – 2016.12*

- Developed contact pressure and position measurement system for a contraceptive implants assisting device
- Validated the reliability and repeatability of mechatronic measuring system with Matlab and Arduino
- Applying design ethnography and co-creative process for healthcare product in low-resource-setting countries

Remote Robotic Machine Player with Grabbing and Scoring Systems *2014.9 – 2015.1*

- Designed a remote controlled robot with differential drivetrain to grab & position targets into desired locations
- Incorporated mechatronic systems of using PID controller and Solidworks computer aided drawing

Mobile Human Powered Generator for Bicycle *2014.1 – 2014.5*

- Designed and constructed a mobile generator for lights attachable to a bicycle by applying Faraday's Law
- Engaged in sustainable design process of minimizing the burden to the environment throughout the project

Dec. 2016