





Education Background

- 08/2014 – 12/2016 **University of Illinois at Urbana-Champaign (UIUC)** Urbana, IL
• GPA: 4.0/4.0, Master of Science in Mechanical Engineering, MSME
- 09/2012 – 06/2014 **The University of Hong Kong (HKU)** Hong Kong
• Major GPA: 4.01/4.30, Bachelor of Engineering in Mechanical Engineering, BEng(ME), with *First Class Honors*
- 09/2010 – 06/2014 **Shanghai Jiao Tong University (SJTU) (Dual-Degree with HKU)** Shanghai, China
• Major GPA: 3.65/4.30, Bachelor of Science in Mechanical Engineering (Pilot Class)

Skills

- Certified NI **LabVIEW** developer with 2+ years LabVIEW development experience (**CLD Certification in Progress**)
- Proficient in **MATLAB**, **C/C++**, **Python** and **EES** programming, and familiar with **PLC**, **Java** and **HTML**
- Experienced in 3D modeling software: **SolidWorks** (4+ yrs), **Pro/E** and **Creo** (2+ yrs), **UG NX** (2+ yrs)
- Fluent in solid, fluid and thermal simulation packages: **Abaqus** (FEA), **ANASYS Fluent** (thermal and fluid)
- Knowledgeable in **GD&T**, **DFM**, **SPC** and **DOE** for manufacturing operation and optimization

Work Experience

- 05/2016 – 08/2016 **Tesla Motors, Inc.** Fremont, CA
Powertrain Manufacturing Test Intern at Test Equipment Engineering Department

 - Collaborated with electrical and software engineers for tester program development in LabVIEW, PLC and Python
 - Designed and integrated testing fixtures in functional testers with pneumatic components and Pogo pins
 - Redesigned, and delivered a tester for battery module testing with improved heat dissipation and reduced maintenance needs
 - Improved part of the test connectors and harnesses for effortless and durable applications on the general assembly line
- 08/2015 – 05/2016 **University of Illinois at Urbana-Champaign** Urbana, IL
Teaching Assistant for Design for Manufacturability and Introductory Solid Mechanics

 - Course online resources development including online quiz and homework on GitHub with Java and HTML
 - Operated CNC machines, and performed sand casting, rapid prototyping, and injection molding processes
 - Awarded and listed as Teachers Ranked as Excellent across campus
- 05/2014 – 07/2014 **Bombardier Transportation Consulting (Shanghai) Co., Ltd** Shanghai, China
Purchasing Intern at International Procurement Office (IPO)

 - Requested for Quotations (RFQs) and chase for RFQ progress from suppliers on daily basis
 - Supported strategic global sourcing from China by frequent and effective communications with suppliers
 - Designed and submitted Elec. Commodity China Supply Mapping and Rail Control System Supply Mapping report
- 06/2013 – 08/2013 **Hong Kong Mass Transit Railway (MTR) Co., Ltd** Hong Kong
Project Management Intern at Project Programming Department

 - Responsible for project management and scheduling of Shatin-Central-Line (SCL) project
 - Made Project Progress Plans and Resource Distribution Plans with the consideration of Critical Path by Primavera
 - Visited sites and followed up with contractors regularly to keep project on schedule

Academic Projects

- 01/2015 – 12/2016 **Characterization of Air-Cooled Condenser in Power Plant** UIUC, IL
Graduate Research Assistant at **ACRC**, Thesis Project Sponsor: NSF and EPRI; Advisor: Prof. Predrag Hrnjak
 - Designed and built electric circuits and cabinet for a large-scale experimental facility
 - Realized automatic data acquisition on more than 100 data points and hardware communication by LabVIEW
 - Conducted researches on air-cooled condensers to study the influences of inclination angle on heat transfer, pressure drop and flow regimes to optimize condensers design in power generation industry
- 01/2015 – 05/2015 **Numerical Modeling and Simulation of Computer Chassis Cooling** UIUC, IL
 - Constructed several 3D desktop computer chassis models in SolidWorks for different chassis designs
 - Conducted numerical simulation in ANSYS Fluent to reveal the influence of heat sink geometry on air velocity profile and temperature distribution inside the chassis
 - Concluded the significance of proper coupling of heat sink and fan designs on effect of computer cooling
- 09/2013 – 05/2014 **Design-Build-Fly (DBF) Project (Awarded Fong's Project Prize)** HKU, Hong Kong
Group Rotating Leader Sponsor: Boeing and ME Department of HKU
 - Conducted comprehensive studies on model airplane design, aerodynamics and design for manufacturability
 - Designed, machined and assembled a model airplane satisfying AIAA Design/Build/Fly Contest regulations
 - Tested and verified its ground maneuverability and in-flight stability which achieved desired performance
- 08/2013 – 05/2014 **An Experimental Platform of Smart Grid (Awarded Fong's Project Prize)** HKU, Hong Kong
Undergraduate Research Assistant, Final Year Project (FYP) Supervisor: Dr. Michael Z. Q. Chen
 - Established a prototypic test-bed of Smart Grid that demonstrated the functionality and novelty of Smart Grid
 - Achieved automatic switching and monitoring of the entire micro smart grid systems by programming Arduinos
 - Proposed and tested an Energy Management Protocol by coordinating multiple microcontrollers in wireless environment using Arduino XBee ZigBee