

# Jun Li

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## Education

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- **University of Illinois at Urbana-Champaign (UIUC), IL** Aug 2013 – Aug 2016  
Master of Science in Mechanical Science and Engineering GPA: 3.84/4.0  
Advisor: Professor Pega Hrnjak
- **Shanghai Jiao Tong University (SJTU), China** Sep 2009 – Jul 2013  
Bachelor of Science in Thermal Energy and Power Engineering GPA: 3.82/4.0
- **Purdue University, IN** Jan 2013 – May 2013  
Exchange student in Mechanical Engineering

## Research Experiences

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- **Separation and Extraction Headers** Aug 2015 – Present  
Research Assistant. Air Conditioning and Refrigeration Center, UIUC. Advisor: Prof. Pega Hrnjak  
Research Assistant. Identify new opportunities for improvement of evaporator and condenser performance at no additional expense by separating vapor and liquid in headers or by circuiting, with extraction of either liquid (in condensers) or vapor (in evaporators)
- **Separation in Headers to Improve Heat Exchangers and Systems** Aug 2013 – May 2015  
Research Assistant. Air Conditioning and Refrigeration Center, UIUC. Advisor: Prof. Pega Hrnjak  
Experimental and numerical analysis about separation of two-phase flow in headers of microchannel condensers and its effect on condenser performance and system
- **Cryogenic Fluid Storage on Orbit** Sep 2011 – Jul 2013  
Research Assistant. Institute of Refrigeration and Cryogenic Engineering, SJTU. Supported by Shanghai Aerospace Fund, Shanghai Academy of Spaceflight Technology Advisor: Prof. Yonghua Huang  
Research on cryogenic Multilayer Insulation (MLI) and Thermodynamic Vent System (TVS)
- **A Solar-powered Water Pump Based on Stirling Mechanics** Apr 2011 – Apr 2012  
Research Assistant. Shanghai College Student Innovation Project, SJTU. Advisor: Prof. Yonghua Huang  
Designed and manufactured a prototype of solar-powered water pump with  $\gamma$ -type Stirling engine

## Industrial Experience

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- **Mitsubishi Electric Corporation**, Hyogo, Japan May 2015 – Aug 2015  
Intern. Advanced Technology R&D Center

## Publications

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- **Li, J.** and P. Hrnjak, “Separation of liquid and vapor in header of MCHE”, *Int. Refrig. & Air Conditioning Conf. 2016*, Purdue, #2248.
- **Jun Li**, Pega Hrnjak, “The analysis of phase separation in vertical headers of microchannel HEs”, *SAE 2016 Technical Paper*, 2016-01-0253
- **Jun Li**, Predrag Hrnjak, “Phase separation in second header of MAC condenser”, *SAE 2015 Technical Paper*, 2015-01-1694
- Huang Y.H., **Li J.**, Zhu H.W., Wu J.Y., Li P., “Experimental Optimization of Variable Density Multilayer Insulation at Cryogenic Temperatures”, *Proceedings of the 24<sup>th</sup> International Cryogenic Engineering Conference and International Cryogenic Materials Conference 2012*, 147. Fukuoka, Japan
- Zhu Haowei, Huang Yonghua, **Li Jun**, Wu Jingyi, Li Peng, “An experimental setup for performance testing of

multilayer insulation and its preliminary inspection”, *Cryogenics* (in Chinese), 2012, 187(3): 47-51

- Huang Yonghua, Zhu Haowei, **Li Jun**, “Device for testing performance of low-temperature vacuum multilayer heat-insulation material based on thermal protection”, *Chinese Patent*, Publication Number: CN102809581 A
- Huang Yonghua, Fang Lei, **Li Jun**, Wang Ruzhu, “Self-steering solar driven mechanical water pump device based on thermoacoustic effect”, *Chinese Patent*, Publication Number: CN102434423 B

## Professional Activities

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- Student Member: International Institute of Refrigeration (IIR), American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), SAE International, The Institute of Refrigeration, UK (IOR)
- Certified LabVIEW Associate Developer (CLAD) 2014 – 2016

## Extracurricular Activities

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- Pedal for a Purpose—a group bicycle ride from Metropolis to Springfield, South Illinois. Raised a total of \$22,865.74 for Campus Ministry of Evangelical Lutheran Church of America (ELCA) Jun 2–5, 2014
- Second prize of the 4<sup>th</sup> National University Students’ Social Practice and Technological Energy Saving Competition (Top 7%), “A self-steering solar-powered Stirling mechanical water pump” Jul, 2012

## Honors and Awards

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- Shanghai Jiao Tong University Academic Excellence Scholarship, three successive times 2010 – 2012
- Tyco International Scholarship of Shanghai Jiao Tong University (Top 3%) 2011
- National Olympiad of Physics in China (Top 1%) 2008

## Skills

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- Programming Language: Fortran, C++, Assembly language
- Software: Ansys Fluent, LabVIEW, Matlab, EES, NX Unigraphics, AutoCAD, Solidworks, Origin
- Languages: English, Mandarin Chinese, Japanese (intermediate), Cantonese (intermediate), Shanghai dialect (intermediate)
- Hobbies: Cooking, Swimming, Basketball, Soccer