

# Jiange Xiao

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## Education

**University of Illinois at Urbana Champaign** - Ph.D. candidate in Mechanical Engineering May 2018  
**University of Illinois at Urbana Champaign** - Master of Science in Mechanical Engineering December 2015  
**Purdue University** - Bachelor of Science in Mechanical Engineering May 2013  
**Shanghai Jiao Tong University** - Bachelor of Science in Mechanical Engineering June 2013  
Averaged undergraduate/graduate GPA: 3.9/4.0

## Research Experience

### **Condensation of R134a in Smooth Round Tube, Air Conditioning and Refrigeration Center, UIUC**

Advisor: Prof. Predrag S. Hrnjak May 2014 to Present

- Conducting experiments regarding heat transfer and flow characterization of condensation process.
- Establishing models to correlate experimental results with controlled parameters.
- Estimating the oversizing of heat exchanger designs that use conventional models.

### **Condensation of Low GWP Fluids in Microchannels Measured in One Path, Air Conditioning and Refrigeration Center, UIUC**

Advisor: Prof. Predrag S. Hrnjak January 2015 to Present

- Building experimental facility for condensation of low GWP fluids in microchannels.

### **Parametric Testing of Jet-A Flame, Maurice J. Zucrow Laboratories, Purdue**

Advisor: Prof. Galen B. King, Prof. Hukam Mongia January 2013 to May 2013

- Designed and constructed experimental facility for the combustion of Jet-A fuel.
- Tested the Jet-A Flame under different swirl geometries.
- Determined the optimal swirl angle and strength.

### **Soot Effect Study on Jet Engine Flame, Maurice J. Zucrow Laboratories, Purdue**

Advisor: Prof. Jay P. Gore September 2012 to May 2013

- Studied the effect of soot on the jet engine flame radiation.

### **Thermal and Mechanical Analysis of Briquetted Coal Fines with Waste Plastics, Maurice J. Zucrow Laboratories, Purdue**

Advisors: Prof. Steven F. Son, Prof. Lori J. Groven January 2012 to August 2012

- Completed a process to combine coal fines and wasted plastics into a mixing-fuel briquettes.
- Analyzed the thermal, mechanical and chemical properties of the briquettes through experiments.
- Evaluated the practical use of the briquettes in industry.

### **Atomic Force Microscopy (AFM) Improvement, Birck Nanotechnology Center, Purdue**

Advisors: Prof. Barrett Robinson, Prof. Ronald G. Reifengerger January 2012 to May 2012

- Modified the mechanical design of AFM for better performance.
- Proposed new programming methods for faster and more user-friendly interface.

## Teaching Experience

- Teaching assistant of Heat Transfer (ME320) August 2014 to December 2014
- Teaching assistant of Fundamentals of Fluid Dynamics (ME310) January 2015 to May 2015
- Teaching assistant of Multiphase flow (ME504) September 2016 to Present