

# Hanyang Zhao

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## EDUCATION

### Ph.D. Candidate in Mechanical Engineering

May 2017 — May 2021

University of Illinois at Urbana-Champaign

- Featured courses: Mechanics of MEMS, Convective Heat Transfer, Design of Thermal System
- GPA 3.74/4.0

### M.S. in Mechanical Engineering

Jan. 2015 — Dec. 2016

University of Illinois at Urbana-Champaign

- Featured courses: MEMS/NEMS Theory & Fabrication, Control System Theory & Design, Nanotechnology
- GPA 3.61/4.0

### B.S. in Physics with Math Minor

Sep. 2012 — Dec. 2014

University of Illinois at Urbana-Champaign

- GPA 3.14/4.0

## WORK EXPERIENCE

### Research Assistant

May 2017 — Present

University of Illinois at Urbana-Champaign

- Developed polymer coatings to improve thermal efficiency of heat exchanger systems
- Optimized cooling solution for high-power inverter by liquid cooled cold plate by experiment and simulation
- Developed novel hybrid anti-fouling coating patented in USA
- Actively engaged collaborators and industrial funding agencies through effective communication
- Published one first-author and four co-author research papers in high-impact scientific journals
- Invited for six talks at industrial advisory meetings (50+ attendees) and for poster presentation at Gordon Research Conference in Europe (200+ attendees)
- Mentored and supervised three undergraduate research assistants and two master students in experimental techniques and data analysis, resulting in their co-authorships in three publications

### Teaching Assistant

Aug. 2015 — Dec. 2016

University of Illinois at Urbana-Champaign

- Cooperated with a group of 10 TAs and managed 600+ students
- Collaborated with education department in a project studying cooperative learning process
- Led discussion sessions and office hours, created homework and compiled them using HTML5

## EXTRACURRICULAR ACTIVITY

### Volunteer

Aug. 2015 — Aug. 2016

University of Illinois at Urbana-Champaign

- Volunteered at MechSE Innovation Center as manager
- Coordinated schedules and trained new users to operate 3D printer and laser cutter

## SELECTED PUBLICATION & PROJECTS

- **Zhao, H.**, Deshpande, C. A. *et al.* "Extreme Antiscaling Performance of Slippery Omniphobic Covalently Attached Liquids." *ACS Applied Materials & Interfaces* 12.10 (2020): 12054-12067.
- Designed and fabricated MEMS pressure sensor & microfluid channel in cleanroom (50 hours experience in cleanroom)

## SKILLS & INTERESTS

Solidworks, ANSYS Icepak, Creo Parametric, LabVIEW, COMSOL Multiphysics, AFM, SEM, XPS, CVD, PVD, cleanroom, data analysis using Python, Microsoft Office, Adobe Photoshop, Fluent in Chinese (Mandarin) and English