

# HANG HU

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## EDUCATION

### Virginia Tech

Ph.D. Student in Computer Science, Advisor: Gang Wang

2016.09-present

### Huazhong University of Science and Technology

B.E. in Electronic Packaging Technology

2012.09-2016.06

## RESEARCH EXPERIENCE

### Research on coupling between different phonon modes in graphene

Advisor: Prof. Nuo Yang, Dr. Meng An *Nano Heat Group*

2014.09-present

- Built an model to manipulate in-plane/out-of-plane temperature gradient
- Investigated coupling between different phonon modes (TA, LA and ZA) and their contributions to thermal conductivity

### Research on modulation of thermal conductivity in folded graphene

Advisor: Prof. Nuo Yang *Nano Heat Group*

2013.11-present

- Independently wrote FORTRAN code of nonequilibrium molecular dynamics
- Designed innovative structure to reduce the thermal conductivity significantly
- Obtained size-independent thermal conductivity that characterizes large-area folded graphene's thermal properties

### Research on the temperature and flow field analysis of sapphire crystal growth

Advisor: Prof. Haisheng Fang *Multiscale Process Modeling Lab*

2013.08-2013.11

- Comprehensively investigated varied flow fields' influence on sapphire growth
- Used Discrete Phase Model to investigate the distribution of inert impurities
- Simplified the complex system and found a new way to improve sapphire's quality

### Team leader on designing the device utilizing wave energy in small watersheds

Advisor: Prof. Jun Xiang

2013.05-2013.08

- Designed the innovative machine to harvest small wave energy
- Successfully optimized the structure by modeling and effectively improved the energy conversion efficiency
- Made the prototype of the device

## HONORS AND AWARDS

### Warren M. Rohsenow Fellowship

Awarded by Department of Mechanical Engineering, MIT

2015-2016

### National Scholarship (Three times)

Top 1% among all competitors, awarded by Ministry of Education of PRC

2012,2013,2014

### Outstanding Student of Huazhong Univ. of Sci. & Tech.

Top 1% among all 2nd & 3rd year students, one of the top honor for undergraduates

2012-2014

### Excellent Award in the 3rd National Water Resource Innovation Design Competition

2013.07

## INTERNSHIP EXPERIENCE

### Summer Intership at Shangu Power Co.,Ltd., Xi'an

2014.06

- Learned details of manufacturing process of tail gas turbine
- Systematically learned the CFD computation methods for turbine design

## COMPUTER SKILLS

FORTRAN90(MPI), C++, Fluent, AutoCAD, MATLAB/Simulink,  $\LaTeX$