# Zhiyu Liu

No.1037 Luoyu Road, Wuhan, China

Mobile: (+86)15927069595 Email: zhiyu@hust.edu.cn 

## **Education**

#### **Huazhong University of Science and Technology**

Wuhan China

B.E. in Energy and Power Engineering

Exp. June. 2019

- **GPA** 91.2/100 | Rank 9/256 | **TOEFI** 103 (R27+L27+S23+W26) | **GRE**:V158+Q169+AW3.0
- Relevant Courses: Calculus(98/100) Fluid < (94/100) Engineering Heat Transfer(93/100)

Thermodynamics(96/100) Physics(99/100) Theoretical Mechanics(100/100) C++Programing design(95/100)

**Cambridge University** 

summer program

July. 27th -Aug. 10th. 2017

# Research

#### iSURE Program in University of Notre Dame

**MEMT** 

Advisor: Prof. Tengfei Luo

Jul. 2018 - Present

- Independently calculate the phonon dispersion and thermal conductivity of 2D materials using QUANTUM ESPRESSO and ShengBTE
- Correct some parameters set by the PhD students and get some interesting findings

#### Research on the first-principles calculation of thermal conductivity of Si

Nano Heat Group

Advisor: Prof. Nuo Yang

Mar. 2018 - July. 2018

- Independently learn how to use first-principles and phonon transportation equation to calculate the thermal conductivity
- The first one in the group to master the method of using first principle to calculate the thermal conductivity

#### Research on the thermal conductivity of the Silicon Nanowire Cage

Nano Heat Group

Advisor: Prof. Nuo Yang

Jan. 2018 - June. 2018

- Independently install the quantum espresso software for the graduate students
- Use VASP to calculate the electronic band structure of Silicon-diamond

#### Research on the electronic property of the Si, Ge, Graphene

Nano Heat Group

Advisor: Prof. Nuo Yang

Sept. 2017 - Dec. 2017

Learn how to use VASP and BoltzTraP to calculate the electronic band structure and conductivity

## **Publication**

## 'Electronic Transport Properties of Silicon Nanowire Cage'

Aug. 2018

2016 2016,2017

The 16th International Heat Transfer Conference, IHTC-16

Shenqiu Mo, Dengke Ma, Lina Yang, Meng An, **Zhiyu Liu**, Nuo Yang,

## **Honor & Award**

| • | HUST Outstanding Undergraduates in Term of Academic Performance |        | top 3% |
|---|---|--------|--------|
| • | HUST Merit Students Scholarship                                 | top 4% |        |

HUST Outstanding Freshmen top 3% 2016

HUST Merit student Scholarship of Technical Institute of Physics and Chemistry, CAS 2018

### Skill

- C++, Linux, Python,
- VASP, QUANTUM ESPRESSO, ShengBTE, Phonopy, ORIGIN, SOLIDWORKS, INVENTOR