

# QICHEN SONG

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## EDUCATION

**Huazhong University of Science and Technology (HUST), 2011.09-present**

Major: Thermal Energy and Power Engineering

Degree: Bachelor of Engineering, expected 2015.06

Overall GPA: 92.2/100 Overall Rank: 1/366

### Standard Tests

TOFEL: 107 (R29 L30 S23 W25)

GRE: V152+Q170+AW4.0

## RESEARCH EXPERIENCE

### Research on coupling between different vibrational modes of graphene

2014.09-present

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

- Modeling thermal transport by nonequilibrium molecular dynamics (NEMD)
- Calculating temperature gradient in separated directions with varying lengths
- Investigating size-dependent effect of the coupling between different vibration modes

### Research on the thermal conductivity of folded graphene

2013.11-present

Advisor: Prof. Nuo Yang *Nano Heat Group*

- Simulating the evolution process by NEMD
- Designing innovative structure to reduce the thermal conductivity
- Modifying the parameters of structure to obtain a converged outcome

### Research on the thermal and fluid field analysis of sapphire crystal growth

2013.08-2013.11

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

- Analyzed the velocity field by using Computational Fluid Dynamics software
- Used Discrete Phase Model to investigate the distribution of inert impurities
- Investigated the relationship between the quality of the sapphire and the rotation speed

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

2013.05-2013.08

Advisor: Prof. Jun Xiang

- Designed and optimized the shape of the floating part
- Designed the core component to collect and convert the wave energy
- Made the prototype of the device

## PATENT

Q.C. Song et al, "An electricity generating device by utilizing small wave energy" (submitted 2014)

## HONORS AND AWARDS

**National Scholarship** (Three times)

2012,2013,2014

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

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

2012-2014

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

**Merit Student** (Three times)

2012,2013,2014

Top 4% among all competitors, issued by HUST

**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 the manufacturing process of axial compressor
- Learned the CFD calculation of compressor and turbine design

## COMPUTER SKILLS

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