

# Wanping Lu 路菀萍

The Chinese University of Hong Kong, Hong Kong

## Contact Information

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## Education Background

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Tsinghua University	08/2015-07/2019
Department of Precision Instrument	
Overall GPA: 3.63/4.0	Ranking: 10 <sup>th</sup> among 45 students
The Chinese University of Hong Kong	08/2019-Present
Department of Mechanical and Automation Engineering	
Academic Excellence Award	(2015-2016)
Volunteer Excellence Award	(2015-2016)
Academic Excellence Award	(2016-2017)
Volunteer Excellence Award	(2016-2017)
Social Work Excellence Award	(2016-2017)
Social Work Excellence Award	(2017-2018)
Science&Technology Innovation Scholarship	(2017-2018)
Comprehensive Merit Scholarship	(2017-2018)

## Academic Experiences

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### Student Research Training (SRT)

#### Dynamic Research of Nondestructive Testing Technology Based on Dual Optical Combs (2016-2017-1)

The purpose is to explore the research trends and development direction of NDT technology. In the review, I summarize the results of two major types of research - the constant amplitude optical frequency comb and the absolute measurement of optical frequency comb distance. The summary of the status quo in China includes the development of erbium-doped femtosecond optical comb and the BOTDA sensor based on frequency comb. The foreign development mainly includes the mid-infrared frequency comb. Predictable developments include further research on high repetition rate femtosecond lasers and so on.

#### Biosensor research (2017-2018-1)

The project is to carry out biological detection of micro-nano sensor design, processing and testing. I study the ZnO nanorod growth and test the nanostructured microelectrode, the combination of ZnO nanorod growth and electroplating to fabricate nanostructured microelectrodes for SERS and EIS measurements and zinc oxide nanorod field effect transistors for long term cell force measurements.

#### Ultrafast two-photon 3D Microscope (2018-7-2018-9)

In the process of laser propagation, the pulse envelope is broadened. In order to avoid the increase of pulse width during the laser beam propagation in the two-photon microscope and affect the imaging effect, a Subl system needs to be added to perform

pulse width compression. I help design the Subl system.

### **Lab Practice**

#### **Biosensor research (Instrument Research Institute, 2017-present)**

The study includes the ZnO nanorod growth and test the nanostructured microelectrode. What I've done so far is mastering nanoelectromechanical integrated manufacturing methods based on ZnO nanowires, thinking of making ZnO nanowires under different growth conditions to improve their performance.

### **Extracurricular Activities**

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#### **Student Social Work**

Vice-headman of Zijing International Volunteer Association, the Communist Youth League Committee, Tsinghua University. 05/2016-present

Vice-headman of Tech Unit, the Students' Association of Science and Technology, Department of Precision Instrument, Tsinghua University. 05/2017-2018/05

Tenth member of Tsinghua Xinhua Program the Communist Youth League Committee, Tsinghua University. 05/2017-present

Headman of Tech Unit, the Students' Association of Science and Technology, Department of Precision Instrument, Tsinghua University. 05/2018-present

#### **Volunteer Experiences**

Volunteer for Buddy Program 10/2017

Volunteer as a guide, in Tsinghua 05/2017

Volunteer as a pen pal in the Shuimuxinxiang, in Tsinghua 10/2016

### **Social Practice**

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Member of Research Plan of Tsinghua Xinhua Program 2017, winter, Japen

Member of Accurate Poverty Alleviation Survey of Renshou 2016, winter, Sichuan

Member of Survey of Danzhai of Tsinghua Xinhua Program 2017, summer, Guizhou

Member of Survey of Nuoyer Kang Institute 2017, summer, Hangzhou

### **Other Information**

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#### **Computer Skills:**

MATLAB, C++, Solidworks, AutoCAD, LabVIEW

#### **Hobbies:**

cricket, badminton, painting, watching film, music, karate.