# Yinjuan Zhai

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### Education

Bachelor of Engineering, Nanjing University of Posts and Telecommunications

Sep. 2016-June 2020

Major: Optoelectronic Information Science and Engineering

GPA: 3.86/4 (89.69/100)

#### **Related Courses**

Advanced Mathematics (95), Signal Analysis (95), Physical Optics (95), Theory of Laser (99), Analog Electronic Circuits(98), Digital Circuits and Logic Design(99), Basis of Optoelectronic Information Physical(97), Optoelectronics(93), Basic Experiment in Electrical Technology & Electrical Engineering(A)

# **Research Experiences**

# 1. Simulation and experiment of solitons in optical fiber cavity

June 2020-Dec. 2020

Position: Undergraduate Researcher, Supervisor: Prof. Zuxing Zhang, Prof. Zhiqiang Wang

- Simulated time domain and frequency domain optical field in the optical fiber cavity based on LLE model and swept different driving powers and detuning values, therefore finding the optimal driving power and detuning to produce stable solitons in the cavity.
- Constructed a 50-m optical fiber cavity. Used a proportional-integral-derivative (PID) control circuit to lock the drive frequency to the resonant frequency successfully and thus got stable soliton pulse.

### 2. Simulation of frequency comb in micro-cavity

Sep. 2019-June 2020

Position: Undergraduate Researcher, Supervisor: Prof. Zuxing Zhang, Prof. Zhiqiang Wang

• Simulated the frequency comb of the microcavity based on LLE model.

#### **Honors and Awards**

### Honors

Selected to participate in summer academic camp hosted by School of Optoelectronic Science and Engineering, Zhejiang University, July 2019

First-Class Scholarship, Nanjing University of Posts and Telecommunications, Sep. 2017-2019

Best Student Award, Nanjing University of Posts and Telecommunications, Sep. 2017-2019

National Encouragement Scholarship, Nanjing University of Posts and Telecommunications, Nov. 2017-2019

#### **Awards**

Meritorious Winner in "American Mathematical Contest in Modeling", Feb. 2019

Honorable Mention in "American Mathematical Contest in Modeling", Feb. 2018

Honorable Mention in "Inner Mongolia Mathematical Contest in Modeling", Dec. 2018

Third Price in "The 14th Advanced Mathematics Competition of Jiangsu Province", June 2017

#### **Skills**

Programming Languages: Matlab, C++

TOEFL: 104, fluent at reading, listening and writing

# References

**Zuxing Zhang**, Professor, Nanjing University of Posts and Telecommunications, Phone: +86-18761861619, Email: zxzhang@njupt.edu.cn

**Zhiqiang Wang**, Professor, Anhui University, Phone: +86-18326162660, Email: zhiqiangwang@ahu.edu.cn **Kehan Yu**, Professor, Nanjing University of Posts and Telecommunications, Phone: +86-13255289319, Email: kehanyu@njupt.edu.cn