

Wei Liu

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EDUCATION

Zhejiang University

College of Optical Science and Engineering

09/2016 – Present
Bachelor

- GPA 3.94/4.0 (90.06/100)
- Rank 4/145
- Expect Graduation Date: July 20th 2020

RESEARCH EXPERIENCE

- 07/2019 – 08/2019 Neuron Stimulation using Photoacoustic Effect (Boston University) Intern**
- **Abstract:** Low-intensity ultrasound is an emerging modality for neuromodulation. An alternative way to generate ultrasound wave is through photoacoustic effect. In the photoacoustic process, pulsed light is illuminated on an absorber, causing transient heating and thermal expansion, and generating broadband acoustic waves at ultrasonic frequencies.
 - **My work:** To miniaturize the spatial resolution of the ultrasound generated by the optic fiber tip by using the taper fiber. Using the self-designed pulling fiber setup to pull the taper fiber whose diameter is about 20 μm , and coating the taper fiber under microscope. Measuring its Photoacoustic signal and spatial resolution using hydrophone and transducer array.
- 04/2018 – 06/2019 Laser induced fluorescence in the phytoplankton (Zhejiang University) Project Member**
- **Abstract:** Chlorophyll that is the primary pigment in phytoplankton and an indirect indication of the biomass of phytoplankton determine the production process. Fluorescence is a process of energy releasing when the chlorophyll is illuminated by light. As a result, our teamwork is to research on the relation between the fluorescence signal and the concentration of chlorophyll. We using existing model to simulate it and set about evaluating the feasibility of Spaceborne Laser System.
 - **My work:** Research on the principles of the relationship between emitted laser signals. Do investigations on the forward algorithm of the existing model. Figure out the Lidar Equation and make clear the different process between Laser signal and Fluorescence signal. Make use of the existing Forward Model to simulate the signal curve of the fluorescence. Using the existed model to evaluate the feasibility of the Space-borne Lidar.
- 12/2018 – 01/2019 Simulation of propagation in Nano-fiber (Zhejiang University) Project Member**
- **Abstract:** Nowadays, most of the existing solution to the Optical Fiber are based on weak-guided condition, which is not suitable for the extremely smaller diameter fiber, we prefer to call it Nano-Wire. Therefore, it's necessary to write our own program to investigate the propagation constant of the light, its field distribution, single mode condition, group velocity and waveguide dispersion.
 - **My work:** Successfully solved the propagation constant, field distribution and other properties via solving the full vector Maxwell Equation.

Curriculum Vitae

AWARDS & HONORS

2017-2018	Zhejiang Provincial Government Scholarship
2017-2018	Outstanding Student of Zhejiang University
2018-2019	The First Prize Scholarship of Zhejiang University
2018-2019	The First Class Guoguang Scholarship
06/2019	The First Prize in Opto-electronic Knowledge Contest
2017-2018, 2016-2017 (Twice)	The Second Prize Scholarship of Zhejiang University
06/2019	The Second Prize in Opto-electronic Competition of Zhejiang University
09/2018	Excellent individuals in Summer Social Practice
01/2018	The Second Prize in University Physics Innovation Competition
04/2018	The Third Prize in Zhejiang University's third Unmanned Drone Competition

EXTRACURRICULAR ACTIVITIES

09/2017 – 6/2019	➤ Student Association of College of Optical Science and Engineering	Minister of Department of Practice
	<ul style="list-style-type: none">• Organized volunteer activities many times• Help college student apply for their volunteer hours• Won the good reputation from the society at volunteer activity.	
09/2017 – 06/2018	➤ Traveling Association of ZJU	General Staff
	<ul style="list-style-type: none">• Organized Food Treasure Hunt activities• Organized Group Outings to students from different department• Got in the seek of sponsorship for the Travelling Association	

OTHER INFORMATION

- **Computer Skills:**
MATLAB, C/C++, Keil μ Vision, Altium Designer, Solidworks, Zemax, Code V, Optisystem, Python
- **Hobbies:**
Basketball, Swimming, Running, Photography

SELF-ASSESSMENT

- **Full of passion of exploring unknown**
Always discuss doubtful questions with others, concentrate myself on specific phenomenon
- **Like taking part in various interesting activities**
The 3rd prize in Zhejiang University's third Drone Competition,
The 2nd prize in Freshman Basketball Competition.
The 3rd prize and 4th prize in Competition of Sanhao Rugby Cup in 2017 and 2018 respectively.
Participated in Psychological Drama Contest and won the 2nd prize.
- **Hard-working, Energetic and Optimistic, Outgoing and Easygoing, Self-disciplined**