Fengyan **Yang**

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"Be the change that you want to see in the world."

Summary

I major physics during my college study, and have three periods of scientific research experience in different universities. I am eager to be a physics scientist in the future.

Education

School of Physics, Nankai University *Tianjin China*

Bachelor of Science (Expected) *2016 - 2020*

- Major: Physics. (Boling Class, an honored program, the Pilot Scheme of Talent Training in Basic Sciences)
- GPA: 3.94/4 (by WES iGPA Calculator), 91.60/100)
- Ranking: 3/174 in School of Physics (with in top 2%), 3/22 in Boling Class
- Main Courses: Theoretical Mechanics (90), Electrodynamics (94), Quantum Mechanics II (94), Mathematical Physics (95), Basic electronics(97), Solid State Physics (90), Nonlinear Optics (92), Modern applied optics (99), Data Structure and Algorithms (95), Python language and machine learning (94), Scientific Research III (96), Mechanics (100), Linear Algebra (99). etc

Research Experience

Washington University in St.Louis *St. Louis, Missouri, U.S.A*

Research Intern *June 24, 2019 - September 16, 2019*

Advisor: Lan Yang, professor of Electrical and Systems Engineering

Project 1: made up a bio-compatible mininature laser out of doped silk fibroin

- Extracted silk fibroin from cocoons.
- XXXXXXXXXXXXXXXXXXXXXXXXXX.
- XXXXXXXXXXXXXXXXXXXXXXXXXXX

University of Arizona *Tucson, Arizona, U.S.A*

Research Intern *June 24, 2018 - September 24, 2018*

Advisor: Zhenshen Zhang, assisitant professor of Optical Science, joint appointed Material Science an Engineering, joint appointed in Optical Science

Project: Develop a software package for the generation of micro-resonator based frequency combs.

- Developed MATLAB-COMSOL interface to calculate material waveguide dispersion
- Simulated frequency-domain nonlinear interactions in ring resonators by solving coupling mode equations.
- simulated time-domain nonlinear interactions in ring resonators by solving Lugiato–Lefever equation

Nankai University *Tianjin, China*

Undergraduate Researcher *September 2017 - March 2019*

Advisor: Yi Hu, associate professor in School of Physics

Project: Calculate band structure of topological photonic crystals and investigate nonlinearity induced topological phase transition.

- Learned FDTD algorithm and commonly used computational methods in physics, including Runge-Kutta, Monte Carlo, and etc.
- Calculated band structure of graphene and photonic crystals using Comsol and Matlab.
- investigated topological phase transition induced by nonlinear coupling coefficient

Work Experience

TEACHING ASSISTANT

Mar 2019 - Jun 2019 , Basic Physics (teaching in English)
Sept 2018 - Jan 2019 , Basic physics experiment

TEAM LEADER OF OSA STUDENT CHAPTER

Mar 2018 , Founded OSA Student Chapter in Nankai University
Mar 2018-present , President of OSA Student Chapter in Nankai University

Academic Activities

Sept 2019	**Attendee**, Student Leadership Conference of OSA, Frontiers in Optics meeting	*Washington U.S.A*
Jan 2019-present	**Student chief editor**, Journal of Boling School	*Tianjin, China*
Oct 2018	**Poster Presentation**, Overseas internship summary meeting	*Tianjin China*
Nov 2018	**Organizer** , Organized the visit of OSA chapter to optics lab in Peking University	*Beijing, China*
May 2018	**Student Referee**, China Young Physicists' Tournament in 2018	*Tianjin, China*
Feb 2018	**Lecturer**, Comsol workshop of calculating dispersion of micro-resonators	*Tianjin, China*
Sept 2017	**Academic visit**, National Taipei University and Academia Sinica of Taiwan	*Taipei, China*

Skills

- Programming: MATLAB, Python, LaTeX
- Simulation: COMSOL
- Nnnnnnnnnnnnnnnnn
- Language:
  TOFEL: 101 (Reading: 26, Listening: 30, Speaking: 23, Writing:22)
  GRE General: 325+3.5 (Verbal: 155, Math: 170, Writing: 3.5)

Honors and Awards

2017, 2018: China National Motivation Scholarship
2016, 2017: Boling Scholarship
May 2017 : the 9^{th} Nankai Physics Tournament, first prize

Extracurricular Activity