Wang Chang

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PROFILE

- Bachelor of Applied Statistics, solid professional knowledge, mathematics scores above 87, participated in the national and provincial mathematics competitions for many times. Actively participate in academic activities and exchange learning, with a sense of teamwork and research work experience.
- Motivated, excellent in academic performance and strong self-learning ability, have systematically completed the study of mathematical analysis, advanced algebra and analytical geometry courses. I have proficient skills in constructing mathematical models and familiarity with building computer algorithms. I have two years of experience in mathematical modeling competitions and the ability to construct and train my own machine learning algorithm models. I possess theoretical tools in statistics and mathematics and am capable of efficiently utilizing computer programming.

EDUCATION

Nanjing Post and Communications University **09/2020-Current**

Bachelor of Applied Statistics

GPA: 3.31/4.00 (Top 18%) | Total score: 82.94/100

PROJECT EXPERIENCE

Machine Learning research **10/2023-Current**

- Learned Meta-learning and built MAML training model.
- Master the LSTM model and use it in sliding window-LSTM model building experience
- Building PINN and I-PINN models

Mathematical Modeling Competition and Data Mining **10/2021-Current**

- Proficient in Data Cleaning and various clustering analysis.
- Accurate classification and data mining of multihull sailing ship market transaction data
- Mining natural weather data and accurately modeling and simulating the spread of regional flora and fauna

Peking University Summer School of Differential Geometry **07/2022-08/2022**

- Learn Geometry and topology, complex geometry, geometric analysis, geometric theory.
- Learn basic mathematical knowledge and master classical differential geometry and point set topology.
- Familiar with differential manifold, Riemannian geometry, algebraic topology.

Ultra high energy laser research **05/2021-Current**

- Participate in learning and studying nonlinear Thomson scattering processes.
- Use the fifth-order Runge-Kutta method to solve the simulation of radiation phenomena in Thomson scattering.
- Propose a new GPU simulation program to simulate x-rays and γ-rays obtained by nonlinear Thomson scattering.

Hong Kong Precious Blood Secondary School exchange learning **07/2019-08/2019**

- Participated in a study exchange at the University of Hong Kong.
- Attend robot design classes and English classes.

PUBLISHED

[1]. Collimation and monochromaticcity of y-rays generated by high-energy electron colliding with tightly focused circularly polarized laser with varied intensities. Second Author. Laser Physics Letters. 202203

[2]. Comment on "Even-order harmonic generation from nonlinear Thomson backscatter in a tightly focused Gaussian laser pulse". Second Author. Phys. Plasmas 29, 043102 (2022)

[3]. Modulation of high-energy y-rays by collision of an ultra-high-energy electron with a tightly focused circularly polarized laser pulse. Third author. Applied optics. 202204

[4]. Effect of electron acceleration on relativistic nonlinear Thomson scattering in tightly focused linearly polarized laser pulses. Third author. Physics of Plasmas. 202208

SKILLS

Programming languages: Python, C++, C

Data analysis: MATLAB, R, SPSS, WolframAlpha

Language skills: CET4, CET-6, IELTS 5.5

HONORS & AWARDS

2024.02 **Meritorious Winner Award** of Mathematical Model Competition for American College Students

2021.02 **Honorable Mentions Award** of Mathematical Model Competition for American College Students

2023.02 **Second Prize** of Physics Experiment Competition in Jiangsu Province

2024.05 Participated in the Yau Shing-Tung University student math Competition(Probability & Statistic)

2022.07 Participated in the Yau Shing-Tung University student math Competition(Topology & Probability)

2022.08 Honorable Award in the 25th World Choral Festival

2023.03 Jiangsu Province Challenge Cup **second prize**