

# Yuansheng Gao

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## EDUCATION BACKGROUND

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### Ph.D. at Zhejiang University (ZJU)

09/2024-NOW

*Doctor of Philosophy in Computer Science and Technology*

- **Advisor:** Zonghui Wang, Wenzhi Chen

### B.Sc. at Liaoning Technical University (LNTU)

09/2020-07/2024

*Bachelor of Science in Information and Computing Science*

- Major GPA: 90.5/100      Overall rank: 1/116

## RESEARCH INTEREST

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**Current Research:** My research focuses on generative artificial intelligence, particularly (multimodal) large language models. I am specifically exploring content safety, knowledge-based Q&A, prompt learning, and fine-tuning. Additionally, I have a keen interest in the intersection of AI with the arts and other humanities disciplines.

**Undergraduate Research:** During my undergraduate years, I had the privilege of engaging in mathematical modeling and was awarded second prize in the China Undergraduate Mathematical Contest in Modeling in my sophomore year. It was during this time that I discovered my interest in metaheuristics. Alongside my undergraduate team, I contributed to the development of PID-based search algorithm (PSA), love evolution algorithm (LEA), and more.

## PUBLICATION

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See all my publications on *Google Scholar!*

† denotes corresponding author; \* denotes joint-first author

Yuansheng Gao<sup>†</sup>, Jinpeng Wang, Changlin Li, *Escape After Love: Philoponella prominens Optimizer and Its Application to 3D Path Planning*, Cluster Computing, 2025, **SCI Q1**

Yuansheng Gao<sup>†</sup>, Jiahui Zhang, Yulin Wang, Jinpeng Wang, Lang Qin, *Love Evolution Algorithm: A Stimulus-Value-Role Theory-Inspired Evolutionary Algorithm for Global Optimization* [J], The Journal of Supercomputing, 2024, **SCI Q2**

Yuansheng Gao<sup>†</sup>, *PID-Based Search Algorithm: A Novel Metaheuristic Algorithm Based on PID Algorithm* [J], Experts System with Applications, 2023, **SCI Q1**

Yuansheng Gao<sup>†</sup>, Changlin Li, Lei Huang, *An Improved Deep Extreme Learning Machine to Predict the Remaining Useful Life of Lithium-ion Battery* [J], Frontiers in Energy Research, 2022, **SCI Q3**

## HONORS & AWARDS

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**First prize**, 2022 National Student Mathematical Modeling Competition in Liaoning Province, top 5%, China Society for Industrial and Applied Mathematics, Municipal level 11/2022

**Second prize**, 2022 The 3rd Liaoning Higher Education AI Challenge, for College Students, top 25%, The Educational Department of Liaoning Province, Municipal level 11/2022

**Third prize**, The 3rd Liaoning Province 3D Digital Innovation Design Competition, top 10%, The Educational Department of Liaoning Province, Municipal level 10/2022

**Second prize**, 2022 Liaoning Higher Education Student Mobile Application Development Competition, top 15%, The Educational Department of Liaoning Province, Municipal level 10/2022

**Bronze prize**, "China Construction Bank Cup" The 8th Liaoning Province "Internet+" Student Innovation and Entrepreneurship Competition, top 4%, The Educational Department of Liaoning Province, Municipal level 09/2022

**Third prize**, The 10th National Mechanical Innovation Design Competition for College Students in the Huiyu Category and the Huiyu Engineering Technology Innovation Competition, top 33%, National Student Mechanical Innovation Design Competition Organizing Committee, National level 08/2022

**Silver prize**, 2022 “Challenge Cup” Liaoning Student Entrepreneurial Plan Competition, top 19%, The Educational Department of Liaoning Province, Liaoning Provincial Department of science and technology, Department of human resources and social security of Liaoning Province, Liaoning Intellectual Property Office, Liaoning Academy of Social Science, Liaoning Association for Science and Technology, and Liaoning Federation of Students, Municipal level 08/2022

**Second prize**, 2022 The 3rd Underwater Intelligent Equipment Innovation and Design Competition, top 25%, The Educational Department of Liaoning Province, Municipal level 08/2022

**Third prize**, 2022 Liaoning Higher Education Smart Agriculture Innovation and Entrepreneurship Competition for College Students, top 40%, The Educational Department of Liaoning Province, Municipal level 07/2022

**Second prize**, The 12th MathorCup Collegiate Mathematical Modeling Challenge, top 15%, Chinese Society of Optimization, Overall Planning and Economic Mathematics, National level 06/2022

**Third prize**, 2022 Liaoning Higher Education Computer Design Competition for College Students, top 30%, The Educational Department of Liaoning Province, Municipal level 06/2022

**Third prize**, 2022 Blue Bridge Cup National Software and IT Professional Competition in Liaoning, top 30%, Talent Exchange Center of Ministry of Industry and Information Technology, Municipal level 05/2022

**First prize**, 2021 Asia and Pacific Mathematical Contest in Modeling Certificate of Achievement, top 5%, Beijing Society of Image and Graphics, National level 12/2021

**The Best Programming Award**, 2021 Asia and Pacific Mathematical Contest in Modeling Certificate of Achievement, top 0.08%, Beijing Society of Image and Graphics, National level 12/2021

**First prize**, 2021 National English Translation Competition for College Students, top 5%, International Association of Teachers of English as a Foreign Language, Municipal level 12/2021

**Second prize**, 2021 Liaoning Higher Education Radio Directional Competition for College Students, top 6%, The Educational Department of Liaoning Province, Municipal level 12/2021

**Third prize**, 2021 Liaoning Higher Education “Aomei Greenie Cup” Energy Saving and Environmental Protection Student Science and Technology Innovation Competition, top 10%, The Educational Department of Liaoning Province, Municipal level 12/2021

**First prize**, 2021 National Student Mathematical Modeling Competition in Liaoning Province, top 5%, China Society for Industrial and Applied Mathematics, Municipal level 11/2021

**Bronze prize**, “China Construction Bank Cup” The 7th Liaoning Province “Internet+” Student Innovation and Entrepreneurship Competition, top 4%, The Educational Department of Liaoning Province, Municipal level 11/2021

**Third prize**, 2021 Liaoning Higher Education Student Mobile Application Development Competition, top 25%, The Educational Department of Liaoning Province, Municipal level 10/2021

**First prize**, 2021 Liaoning University Student Transportation Technology Competition, top 10%, The Educational Department of Liaoning Province, Municipal level 10/2021

**Second prize**, The 11th MathorCup Collegiate Mathematical Modeling Challenge, top 15%, Chinese Society of Optimization, Overall Planning and Economic Mathematics, National level 06/2021

**Second prize**, China Undergraduate Mathematical Contest in Modeling, top 2.3%, China Society for Industrial and Applied Mathematics, National level 11/2020

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## PROFESSIONAL SERVICE

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**Journal Reviewer:** *J. Bionic Eng., Sci. Rep., J. Supercomput., J. Electrochem. Energy Convers. Storage, Therm. Sci.*