Tianqi Wang

wangtianqi@mail.dhu.edu.cn · (+86)180-3132-3733 · Github · Personal Website

Education Background

Donghua University, Shanghai — Sep 2022 – Expected Jun 2026

Undergraduate Student School of Computer Science and Technology Intelligent Science and Technology

- **GPA**: 3.93 / 5.00 (Weighted Average 89.3/100) **Rank**: 5th in major (out of 35), 30th in college (out of 296)
- **Awards and Honors**: NITORI International Scholarship, Outstanding Student Title
- **Core Courses**: Deep Learning and Applications (99), Optimization Theory and Methods (98), Big Data Technology (96)
- **Interdisciplinary Courses**: Introduction to Graph Theory (98), Intelligent Factory Technology and Applications (98)

Research Experience and Achievements

Publications

Precise Spiking Neurons for Fitting Any Activation Function in ANN-to-SNN Conversion *T. Wang*, *Q. Shen, X. Li, Y. Zhang, Z. Wang, C. Yan*, Applied Intelligence, 55, 463 (2025). DOI:10.1007/s10489-025-06354-z

- **Research Contribution:** Proposed an innovative PS neuron model, achieving high-precision conversion from Artificial Neural Networks (ANN) to Spiking Neural Networks (SNN), supporting adaptation to any activation function. This method has achieved state-of-the-art (SOTA) performance on multiple standard datasets.

Research Experience

Early Screening Research of Alzheimer's Disease Based on KAN

- Research Focus: Using Kolmogorov Arnold Network (KAN) for predicting neurodegenerative diseases.

Project Experience

"Last Mile" Campus Integrated Service Platform — Aug 2024 – Present

Front-end Developer (Vue3 + TypeScript) Campus Entrepreneurial Project

- Responsible for front-end architecture design, optimizing human-computer interaction processes and system performance.
- As one of the **core initiators** of the entrepreneurial project, led the overall project planning.
- Code Repository: LastMileFrontend

Smart Eye on Sports Field: Soft Hockey Intelligent Tracking and Analysis System — Jan 2025 – Present

AI Model and Algorithm Design Artificial Intelligence Practice Project

- Utilized **multi-object tracking algorithms** to optimize occluded target recognition.
- Used **RAG** technology-based large language model to automatically generate tactical analysis reports according to preset rules, assisting coaches in improving decision-making efficiency.
- Key Technologies: FairMOT, RAG

Awards

Scholarships

NITORI International Scholarship — Dec 2024

Academic Competitions

International Competitions

- Mathematical Contest in Modeling, USA — *M Award (Second Prize)* — May 2024
- Huashu Cup International College Mathematical Contest — *H Award (Third Prize)* — Dec 2023

National Competitions

- MathorCup University Mathematical Modeling Challenge Big Data Competition — *First Prize* — Dec 2023
- National College Mathematical Modeling Contest - Shanghai Region — *Third Prize* — Nov 2023
- Huashu Cup National College Mathematical Modeling Contest — *Second Prize* — Aug 2023

- Shanghai College Student Computer Application Ability Contest — *Third Prize* Jun 2024

Honorary Titles

"Outstanding Student" Title Dec 2024
"Exemplary Work-Study Student" Title Dec 2023
"Self-reliant Youth" Title Apr 2023

Interdisciplinary and Skill Development

Industrial Big Data and Intelligent Systems Elite Innovation Talent Program Mar 2024 – Expected Jun 2025

- Selected as one of 20 students in the university for this program, aimed at cultivating interdisciplinary and innovative talents.
- In addition to major courses, took courses related to industrial big data and intelligent systems, participated in AI and intelligent manufacturing-related technological innovation competitions, and engaged in industrial practices.
- **Relevant Courses**: Fundamentals and Applications of Industrial Big Data, Intelligent Factory Technology and Applications, Intelligent Robotics Technology and Applications, Introduction to Intelligent Manufacturing Systems.

Cognitive Psychology and Neuroscience: The Relationship Between Pathologies such as Depression and Anxiety and Brain Neuroscience Oct 2024 - Jan 2025

- Course Duration: **54** hours
- Final Grade: **A**
- Research Focus: Learning mechanisms and their neurobiological basis, including depression, anxiety, and related conditions.

Interdisciplinary Foundation in Computer Science, Mathematics, and Biology Ongoing

- Ensuring excellent performance in major courses while **taking additional courses** in mathematics and biology according to career planning and research interests.
- Completed Courses: Introduction to Graph Theory, Complex Variables and Integral Transforms, Cell Engineering (Average Grade 93).
- Ongoing Courses: Numerical Analysis, Fuzzy Mathematics and Intelligent Systems, Multivariate Analysis, Non-parametric Statistics.
- Planned Courses: Operations Research, Stochastic Processes, Real Analysis, etc.

Others

- **Language Skills**: Chinese (Native), English (Fluent)
- **Skills**: Proficient in PyTorch deep learning framework, familiar with LaTeXfor thesis formatting, capable of using Git for version control, familiar with Linux operating system.
- **Student Work**: Former Minister of the Business Department at Donghua University Work-Study Center, Secretary of the Psychological Development Association at the School of Computer Science.
- **Exploration Research Directions**: Spiking Neural Networks, Neural Science and AI (Neural AI), Exploration of the Nature of Intelligence.
- **Personal Interests**: Reading various books, learning the violin.