Tiancheng Wang

Ethnicity: Han Political Status: League Member Date of Birth: January 2005
Phone: 182-2556-8682 Email: tchwang71@outlook.com
GitHub: github.com/71yvonne Education: Anhui University · Data Science and Big Data Technology

Education

Anhui University Sep. 2023 – Present
B.S. in Data Science and Big Data Technology, School of Big Data and Statistics Undergraduate

GPA: 4.23/5.0 (Top 4% in major), Weighted Average: 92.3/100.
Key Courses: Machine Learning (95), Object-Oriented Programming (95), Data Structures (94), Operating Systems (95), Computer Networks (90), Probability Theory and Mathematical Statistics (97), Database Systems (95), Linear Algebra (96), Optimization Theory and Algorithms (96), Computer Organization (93).
English: CET-6 (483).

Research Experience

Research on Deep Learning-Based Lane Detection 2025.XX – Present
Computer Vision Lab, Anhui University First Author

In complex urban traffic scenarios, existing lane detection methods face challenges with slender structures, large curvature variations, occlusions, and dramatic lighting changes, often resulting in inaccurate geometric fitting and discontinuous detection. Based on the cross-layer refinement network (CLRerNet), this work introduces dynamic snake convolution (DSConv) to enhance adaptive modeling of slender curved structures. Additionally, we improve the Feature Pyramid Network (FPN) with a gated attention mechanism for efficient multi-scale feature fusion, and design a structured loss function that constrains predictions across spatial continuity, local smoothness, and topological connectivity. Experimental results on CULane and CurveLanes datasets demonstrate significant improvements over baseline models, particularly in curved lanes and occluded scenarios. Submitted to Engineering Applications of Artificial Intelligence (EAAI) as first author, currently under review.

Modeling and Forecasting of Interval-Valued Seasonal Time Series 2024.XX – Present
Provincial University Student Innovation and Entrepreneurship Training Program, Anhui University Core Contributor

Existing methods for interval-valued seasonal time series often inadequately capture the interrelationships between interval bounds and width. We propose a Holt-Winters interval-valued multiplicative decomposition model that multiplicatively decomposes and jointly models trend, seasonal components, and interval width, enabling collaborative forecasting of interval centers and widths. Experiments on multiple real-world datasets show significant improvements in IMSE and IMAE metrics over additive and point-valued Holt-Winters models. As core contributor, I led model implementation, data visualization, and comparative model design. Submitted to Journal of Time Series Analysis, currently under review.

Awards and Honors

China Undergraduate Mathematical Contest in Modeling: Provincial First Prize, 2025.
National Statistical Modeling Competition for College Students: Provincial Second Prize, 2025.
Lanqiao Cup National Software and Information Technology Competition: Provincial First Prize, 2026.
National Encouragement Scholarship ×2 (Academic Years 2023–2025).
Outstanding Student Award (Academic Year 2023–2024).

Technical Skills

Programming Languages: Proficient in C/C++, Python with strong engineering and debugging capabilities; familiar with Java, Go, JavaScript.
Research Interests: Computer vision and multimodal learning, especially Visual Language Models (VLM) and related downstream tasks; familiar with CNN, Vision Transformer architectures.
Tools & Frameworks: Proficient in PyTorch for deep learning model development; experienced with NumPy, Pandas, Scikit-learn; Linux development environment, Git version control; VS Code, PyCharm.
Language & Academic Skills: Proficient in reading English papers and technical documentation; capable English academic writing and presentation.