Tong Zhang

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Education and Qualifications

09.2023-06.2025	Master Student	**King Abdullah University of Science and Technology,** Computer Science
03.2023-06.2023	Exchange Student	**University of California, Irvine,** International Business
08.2019-08.2023	Bachelor Degree	**Southern University of Science and Technology,** Computer Science

Research Paper

1. JL Zhao, X Zhang, X Wu, ZX Zhang, **T Zhang**, H Li, Y Hu, J Liu Clinical Pixel Feature Recalibration Module for Ophthalmic Image Classification. *International Conference on Artificial Neural Networks*, *87-98*.
2. A Pardo*, F Pizzati*, **T Zhang**, A Pondaven, P Torr, JC Perez, B Ghanem MatchDiffusion: Training-free Generation of Match-cuts. *arXiv preprint*
3. J Wen, C Wu, **T Zhang**, Y Yu, P Swierczynski, Retinex-Based hierarchical self-adapted curves estimation for low-light image enhancement. *arXiv preprint*

Research Project

09.2021-12.2021 Algorithmic Trading-Bridgewater Project
- Devised an innovative automated trading strategy for select stocks, improving transaction efficiency and profitability through algorithmic execution; Leveraged **Natural Language Processing (NLP)** to quantify the impact of social media sentiment, especially from Twitter, on stock trading dynamics, providing clients with data-driven insights for informed decision-making.

03.2022-09.2022 Computer Vision and Image Processing-Microsoft Project
- Engineered neural network for low-light image enhancement, pioneering zero-shot learning for improved visual recognition in low-light improvement; developed and introduced an unsupervised algorithm, Retinex-Based Hierarchical Self-Adapted Curves Estimation (RHSCE), establishing a new benchmark in **low-light image enhancement** technology.

Work Experiences

06.2023-12.2023 Open Source Development CAMLE, Software Developer
Research: *Communicative Agents for "Mind" Exploration of Large Scale Language Model Society*
- Developed advanced multi-agents system using Large Language Models (LLMs) for problem solving, innovatively introducing **Gantt chart** and tailored **prompt engineering** for subtasks management and planning, which reduced the project planning time by 80 % with accuracy loss less than 5 % as validated by human research.

12.2021-06.2022 United Nations Development Programme, Research and Data Associate
Public Sector: *Data Powered Positive Deviance in financial governance collaborated with The University of Manchester*
- Utilized advanced data science, such as machine learning to transform 81 provincial finance data into actionable insights, facilitating informed decision-making processes in supporting of sustainable city capacity building;
- Specialize in **time-series modeling** techniques, such as ARIMA and SARIMA, to accurately forecast the net profit of municipalities—supporting data-driven supervision for sustainable economic development planning.

01.2023-01.2024 International Centre for Higher Education Innovation under auspices of UNESCO
Consultant Associate: *Teacher Professional Development and Micro-certification Implementation*
- Conducted in-depth investigations into digitalization and ICT infrastructure across 10 partner HEIs in Southern and Eastern Africa. Contributing to research pertaining to micro-certification frameworks, and the development of Teacher Professional Training courses.
- Developed internal training on the technical and data analytic tools on public sector, such as data analysis and data visualization as well as generative AI application on Higher Education fields.

Skills

- Programming: Proficient in Java, `Python`, `Microsoft Office` with practical project experience in Generative AI, prompt engineering
- Languages: Native Chinese, Fluent English.

Honors and Awards (Selected)

2022	Excellent International University UN Volunteer
2021-2024	Outstanding National Scholarship, China