

# Jialong QIN

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## EDUCATION

### Beijing Institute of Technology

Beijing, China

*Bachelor of Science in Data Science and Big Data Technology*

Sep 2022 – Jun 2026

- **Current GPA:** 87.6/100
- **Honour:** Second-class Academic Scholarship ,Outstanding Student Leader
- **Courses:** Machine Learning, Object-Oriented Programming, Data Structures and Algorithms, Discrete Mathematics, etc.

## ACADEMIC WORKS

### Independent Research: Enhancing Sequential Recommendation Systems utilizing LLMs and Knowledge Graphs

- First paper that utilizes self-supervised methods to predict latent item relationships in dynamic knowledge graphs based on LLM for relation-aware sequential recommender systems.
- Harness the language knowledge to discover latent relations and flexible to work with existing relation-aware sequential recommenders through joint learning.
- Significantly improves the performance of existing relation-aware sequential recommendation models and achieve state of the art performance on real world public recommendation data set.

### Co-First Author: A Dynamic Analysis Approach in Racket Sports. SPCS. [EI conference]

- Employed ARIMA, TOPSIS method and Lasso regression to quantify and predict momentum disparities among players.
- Analyzed the momentum fluctuation of players focusing on the 2023 Wimbledon Men's Singles and other events.

## ACADEMIC PROJECTS

### WWW2025 Multi-modal Dialogue System Intent Recognition Challenge

Beijing, China

Fine-tuned VLM Qwen2-vl-7B using 4\*A800 (80G) GPUs and achieved an 8% improvement above baselines successfully.

- Data Augmentation: Infuse prior knowledge into the dataset to enhance performance in data-sparse scenarios.
- Self-Consistency: Employ multiple reasoning paths to ensure the correctness of the answers.
- Pretraining: Utilize pseudo-labeling to introduces a wealth of domain knowledge while applying gradient clipping to mitigate the adverse effects of noisy labels on the training process.
- Intent Summarization: Summarize user-specific intents and filter out noise to refine the input.

## PROFESSIONAL EXPERIENCES

### Institute of Computing Technology, Chinese Academy of Sciences

Beijing, China

*Intern under Bi Keping, Chinese Academy of Sciences*

June 2024 – August 2024

- Conduct experiment on fine-tuning BERT based on SQuAD and engaged in enhancing research skills.

### LIKE Laboratory, Beijing Institute of Technology

Beijing, China

*Intern under Hu Linmei, Beijing Institute of Technology*

Mar 2024 – June 2024

- Conducted experimental parameter optimisation for the paper "Graph Gravitation Network" across various datasets, contributing to the refinement and accuracy of research findings. Experimented with Python to generate t-SNE plots, visualising data representations for further analysis.

## AWARDS

China Undergraduate Mathematical Contest in Modeling Beijing Region (CUMCM) – 1<sup>st</sup> and 2<sup>nd</sup> Prize

2023/2024

American Mathematical Contest in Modeling (MCM/ICM) – Honorable Award

2024

## SKILLS & INTERESTS

- **Languages:** Proficient in reading academic literature in English, with strong English presentation skills.
- **Programming:** Proficient in Python. Skilled in C++ for solving algorithms on LeetCode. Java for web development. Developed a content sharing website by deploying a Spring Boot-based back-end and VUE3-based front-end with instant messaging, content publishing and interactive features.
- **Volunteer Experience:** Accumulated over 100 hours of volunteer work. Volunteered 50 hours providing free computer repair services to students at Beijing Institute of Technology Network Pioneers Association Computer Clinic.