# **Qiucheng Chen**

trouverecc@gmail.com <a href="https://github.com/Trouverecc">https://github.com/Trouverecc</a>

#### **EDUCATION**

#### **Tianjin University, China**

Bachelor of Computer Science and Technology

Aug 2022 – Expected Jul 2026

#### Relevant Coursework:

- Probability Theory and Statistics (100/100);
- Linear Algebra (94/100);
- Advanced Mathematics (90/100);
- C++ Programming Principles (96/100);
- Computer System Practice (94/100);
- Disposable Mathematics B (91/100);
- o Parallel Computing (92/100)
- Physics B (91/100)
- Experiment of Physics A (92/100)
- Experiment of Physics B (91/100)

#### • Honor and Award:

- Academic Achievement Scholarship
- National Excellence Scholarship, 2023 (awarded to the top 5% of students)
- Outstanding Student of Sunshine Sports Initiative, 2023 (awarded to the top 1% of students)
- Liu Bao Scholarship, 2022 (awarded to the top-scoring student in the National Entrance Exam from each province, representing the top 0.6% of students)

#### **EXPERIENCE**

#### College of Intelligence and Computing, Tianjin University

LMc (Language and Mind computing) Lab with Dr. Bo Wang

Apr 2024 - Expected Jul 2026

- Upgrading a counseling chatbot by integrating graph-based structures and sentiment analysis into the LLM
- Resolving response errors in the academic advising chatbot by updating 300+ outdated examples with current data and adding a validation layer to ensure alignment with verified academic policies
- Conducting two key experiments in a human-computer interaction (HCI) project: analyzing decision-making through the Prisoner's Dilemma with LLM and human participants, and assessing loneliness to find alleviation strategies
- Writing a paper addressing both creative and practical aspects of LLM hallucinations, exploring ways to make these hallucinations more valuable through controlled techniques, with submission planned for February 2025
- Data Driving Failure Diagnosis Project, with Dr. Yu Wang, funded by City of Tianjin

Apr 2024 – Expected May 2025

 Co-authored an article titled "Foundation Models for Prognostics and Health Management in Industrial Cyber-Physical Systems: A survey and roadmap", awaiting submission

- Developed a graph network model for multi-sensor correlation learning in gas turbine systems to extract key fault features and improve detection accuracy
- Applied causal inference methods to improve the clarity and the interpretability of the fault diagnosis model
- Tianjin Key Laboratory of Machine Learning with Dr. Ruonan Liu

Aug 2023 - Apr 2024

- Enhanced data analysis and integration with graph networks and causal inference to improve predictive maintenance and fault diagnosis for deep-sea devices, including drilling rigs and underwater robots
- Performed comprehensive research and code reproduction on graph networks; work is accessible at <u>Trouverecc (github.com)</u>

### **LEADERSHIP & INVOLVEMENT**

Double Innovation Center, Faculty of Intelligence and Computing, Tianjin University Director of Science and Technology Association

Aug 2023 - present

- Organizing lectures and discussions on recent computer science advancements, and creating biweekly WeChat updates to share research developments with a broader audience
- Supporting freshmen by offering personalized learning strategies and clarifying challenging concepts from their courses, helping them navigate their academic journey

Class Peer Support Leader

Sep 2023 – present

 Helping fellow students reduce stress by conducting surveys, discussing personal issues, and providing psychological support

Computer Science and Math Tutor

Feb 2020 - present

- Have dedicated over 534 hours to volunteering, tutoring elementary school girls in math and basic computer skills, etc.
- Recognized as a "Star Volunteer" by the China Volunteer Service Network (CVSN) for impactful community contributions

## **SKILLS & INTERESTS**

IT Skills: C++, Python, C, Java, System Verilog, HTML, SPSS, SQL

Research Interests: Knowledge-Enhanced LLM, Hallucination in LLMs, Graph Machine Learning, Causal

Reasoning

Language: IELTS 7.5 (L8.5, R7.5, W7.0, S6.0)

Interests: Swimming, Basketball, Badminton, Piano, Guitar, Zither, Painting