Qingyang Zhou

Tsinghua University, Hai Dian, Beijing $+86~13269109251 \diamond \ \ \, \text{qy-zhou}\\ 22@\text{mails.tsinghua.edu.cn} \\ \text{https://orcid.org/}\\ 0009-0004-4448-7663$

EDUCATION

Tsinghua University

September 2022 - Present

Xinya College, Tsinghua University: https://www.xyc.tsinghua.edu.cn/index.htm

Department of Computer Science and Technology, Tsinghua University: https://www.cs.tsinghua.edu.cn/

GPA 3.54/4.00

Selected A+ professional compulsory course: Introduction to Complex Analysis;

Selected A/A- professional compulsory courses: Linear Algebra, Fundamentals of Programming, Programing and Training, Software Engineering, Introduction to Artificial Intelligence, Digital Logic Experimentation, Computer Network Security Technology

Tianjin Nankai High School

September 2019 - June 2022

RESEARCH PUBLICATION

"Curriculum Multi-Reward Reinforcement Learning for Customized Text-to-Image Generation"

Yuwei Zhou, Xin Wang, Hong Chen, Yipeng Zhang, Qingyang Zhou, Wenwu Zhu 08 Aug 2024 (modified: 10 Dec 2024)Submitted to AAAI 2025 https://openreview.net/pdf?id=kiGUqX6Gct

INTERNSHIP/TRAININGS

scientific research internship at Multimedia and Network Big Data Lab

July 2023 - July 2024

Tsinghua University Multimedia and Network Big Data Lab: https://mn.cs.tsinghua.edu.cn/index/index.html

- · Participating in the research project "Video Generation System Combining Large Language Models with Diffusion Models".
- · conduct study and research on diffusion models and personalized image generation.
- · Assisted in publishing the paper: "Curriculum Multi-Reward Reinforcement Learning for Customized Text-to-Image Generation".

scientific research internship at Pervasive Human Computer Interaction Lab January 2025 - Now Tsinghua University Pervasive Human Computer Interaction Laboratory: https://pi.cs.tsinghua.edu.cn/

- · Participate in research on aligning human and AI thought chains.
- · Responsible for developing a writing assistant application.

scientific research internship at Information Retrieval Lab

October 2024 - Now

Information Retrieval Lab at Tsinghua University: http://www.thuir.cn/

- · Focused on improving traditional recommendation models (such as FM, DeepFM, AFM).
- · Incorporated SAE plugins into these models to enhance their interpretability, controllability, and transparency.

POSITION OF RESPONSIBILITY

Secretary of the Intelligent Agent Department of the Student Science and Technology Association

February 2023 - Present

Tsinghua University Computer Science and Technology Department,

Student Science and Technology Association,

Intelligent Agent Department:

https://net9.org/home/

· Participated in the game development and event organization for the Intelligent Agent Competition.

· Mainly responsible for the development of the Intelligent Agent-Based Game 'Generals' Project in the 28th Tsinghua University Intelligent Agent Competition.

Tutor of Tsinghua University Science and Engineering Summer Camp

July 2024 - August 2024

Tsinghua University 2024 Science and Engineering Summer Camp I6 Class Tutor

- · Responsibled for event organization, answering professional questions, and other related tasks.
- · Led and organized the operation of certain engineering-related activity projects, such as intelligent robot design and card-bridge construction.

SKILLS

Languages

Chinese, English, Spanish (Basic Proficiency)

Programming

C/C++,Python, Javascript/Typescript, Verilog/SystemVerilog, Java

PROJECTS

Intelligent Agent-Based Game 'Generals'

September 2023 - May 2024

Major Project in the 28th Tsinghua University Intelligent Agent Competition

- · A Turn-Based Strategy Game Project, can be visited at: https://www.saiblo.net/game/35
- · Participated in the development of this game project.
- · Responsibled for writing backend logic, , writing unit tests, debugging, creating the SDK, authoring documentation, and guiding participants through the competition.

Text Sentiment Analysis Model

May 2024

Minor Project as a part of curriculum

- · A text sentiment classification model that can analyze the sentiment of the corpus based on the input text.
- · Wrote Python code, using the PyTorch framework, to construct text sentiment classification models with CNN, RNN, and MLP respectively, and test the model performance. The final model's accuracy rate could exceed 90%

Five-stage pipeline CPU

November 2025 - December 2025

Major Project as a part of Computer Organization course

- · A five-stage pipeline CPU hardware program capable of executing 19 basic RISC-V instructions as well as some extended instructions.
- · Wrote hardware code in System Verilog, implementing functions such as data passing, signal control, and hazard handling in a five-stage pipeline, and completed the debugging process using Vivado simulation.

Connect4 AI June 2024

Minor Project as a part of curriculum

- · An AI program that can compete in Connect4 games against existing AI.
- · Used Python, code was written based on the Monte Carlo Tree Search(MCT) and Upper Confidence Bound algorithm(UCT) to construct an AI that can compete in Connect4 games against existing AI, with a final win rate higher than 90%.

Chinese Character 'Pinyin' Input Method

April 2024

Minor Project as a part of curriculum

- · An Chinese character 'Pinyin' input method program that can predict and convert 'Pinyin' input into Chinese characters for output.
- · Used Python, wrote a program based on the Hidden Markov Model and the Viterbi algorithm, ultimately achieving a character prediction accuracy rate of over 85% for Chinese characters.

Android news App September 2023

Major Project as a part of Java course

· An Android news app written in Java that can fetch backend news data from a specified interface and display it on the app's pages. It is capable of implementing features such as pull-down refresh, pull-up to load more, video playback, home page categorization, swipeable tab pages, and the ability to like and favorite news articles.

 \cdot Written in Java code within Android Studio, Completed the entire code architecture, coding, and debugging work for the news app.

EXTRA-CIRRUCULAR

• Served as a volunteer for Tsinghua University's Tianjin recruitment team

August 2023&August 2023

• Served as the Publicity Department Executive in Xinya College.

September 2022-September 2023