JING GAO

6515 Wydown Blvd. St. Louis, MO 63105

Education

Washington University in St. Louis

Aug. 2023 – Expected 2025

B.S. in Computer Science, double major in Entrepreneurship, minor in Mathematics

St. Louis, MO

Technical Skills

Programming Languages: Python, Julia, Java, C, HTML/CSS, JavaScript, Shell

Developer Tools: VS Code, Git, Latex, Markdown, Google Cloud Platform, Amazon Web Service

Technologies/Frameworks: Linux, GitHub, ReactJS, VueJS, WordPress

Speak Languages: Chinese (Native), English (Proficient), Esperanto (Intermediate), Japanese (Beginner)

Certification

Large Language Models: Application through Production Mathematics for Machine Learning: Linear Algebra

Databricks (edX) 2023

ICL (Coursera) 2022

Experience

Washington University in St. Louis

Oct. 2023 - PRESENT

Research Assistant St. Louis, MO

- Utilized Julia programming language for developing and implementing data processing pipelines.
- Installed and maintained jupyter server application with encrypted token access.

Research Institute of Tsinghua, Pearl River Delta

Jun. 2022 - Aug, 2022

Research Assistant & Project Manager Assistant

Guangzhou, Guangdong (China)

- Constructed & evaluate machine models in severe environment.
- Sampled & analyzed data, then Specified & optimized mathematical models.

Publication

Guo, J., & Gao, J. (2022). Comparison of Different Machine Learning Algorithms on Cell

Classification with scRNA-seq after Principal Component Analysis. 2022 7th International Conference on Intelligent Computing and Signal Processing (ICSP). doi.org/10.1109/icsp54964.2022.9778439 [Jingkai Guo and Jing Gao are both first authors]

Research & Projects

AI Jailbreaking | Large Language Model, Jailbreak

Dec. 2023

- Conducted comprehensive research into the mechanisms and limitations of large language models with a focus on identifying potential jailbreak scenarios.
- Developed a systematic approach to test and document various prompt-based techniques aiming to circumvent LLM restrictions.
- Analyzed the ethical implications and potential risks associated with the jailbreaking of LLMs, proposing guidelines for responsible disclosure.

Saga: AI-Powered Writing Assistant | ReactJS, TypeScript, Large Language Model

Apr. 2023

- Developed an AI-powered assistant to solve pain points in the writing process.
- Implemented unique ID system and name completion function for characters.
- Utilized design and targeted user-friendly interface for educational purposes.
- Prepared for entrepreneur start-up.

Machine Learning & Computational Biology Research | Python, Machine Learning

Jul. 2021 - Mar. 2022

- Collaborated in a hybrid research environment.
- Processed large-scale lab data.
- Built and compared statistical training models.

Honors & Prizes

Hack WashU 2023	Best Use of Google Cloud	2023
HackDartmouth VIII: Into The Multiverse	Contrary Capital - Start Up Prize and 2 more	2023
American Mathematics Competition (AMC) 12	First Place * 2 (A&B)	2021
China Thinks Big (CTB)	National First Prize & Global Round Qualification	n 2021