Haoran Wang

+1 (519)871-1582 | hwan783@uwo.ca | LinkedIn | GitHub | Portfolio | London, Canada

Education

Western University — London, Canada
Master of Science in Computer Science; **Grade: 92.5/100** — *Sep 2024 – Aug 2025 (Expected)*

Soochow University — Suzhou, China
BA. in Network and New Media; **GPA: 3.9/4.0** (**Ranking: 1/92**) — *Sep 2020 – Jun 2024*
Minor Degree in Software Engineering; — *Sep 2022 – Jun 2024*
Micro-Major Project in Intelligent Computing and Frontier Applications; **GPA: 3.8/4.0** — *Sep 2022 – Jun 2023*

Academic Distinction:

Mitacs Globalink Research Internship Award — *May 2023*
Visiting Undergraduate Student funded by China Scholarship Council — *May 2023*
Second Prize for Innovation and Entrepreneurship in Sophomore — *September 2022*
First prize for Academic Excellence in Sophomore — *September 2022*
First prize for Academic Excellence in Freshman — *September 2021*

Research Experience

Fake News Detection through Multi-modal Similarity — Suzhou, China
Undergraduate Research Assistant — *Sep 2023 – June 2024*

- Worked in close partnership with Assis.Prof. Guobiao Zhang to investigate a research initiative aimed at enhancing the identification of disinformation in social media.
- Contributed to the development and execution of Joint Multimodal Entity-Relation Extraction Based on Edge-enhanced Graph Alignment Network and Word-pair Relation Tagging, showcasing a strong aptitude for cross-modal analysis and integration.
- Elevated the performance of an existing BERT model for scene classification, specifically tailored for event validation, highlighting expertise in AI model refinement and optimization.

Impact of Open Peer Review on Citation and Altmetric Research — Suzhou, China
Undergraduate Research Assistant — *March 2022 – Oct 2023*

- Collaborated with Assoc.Prof. Xi Cheng to investigate the impact of Open Peer Review on Citations and Altmetrics, with support from The National Social Science Fund of China.
- Utilized Python web scraping methods to extract extensive data from 85,275 articles spanning Nature Communications and PLoS One (2016-2022), encompassing citation counts, altmetric details and supplementary materials.
- Applied an LM Linear Regression model in R to conduct a comprehensive analysis of the correlation between citation counts and time, eliminating the impact of time on citations and altmetrics by introducing a residual function.
- Effectively communicated intricate data patterns using various visualization techniques, including charts and graphs, to enhance the accessibility and understanding of complex findings.

Improved Simulated Viewing of Holographic Imagery — St. John, Canada
Summer Research Internship — *May 2023 – Aug 2023*

- Collaborated with Assis.Prof. Matthew Hamilton on the Light Field project, supported by the Mitacs Globalink Research Internship scholarship.
- Employed CUDA parallel computing to integrate a Gaussian Blur-based model into a light field display simulation, enhancing its ability to accurately replicate the light leakage phenomenon in physical 3D display.
- Developed and implemented a standardized testing procedure to enhance the efficiency and repeatability of assessments for light field images and compression designs.
- Demonstrated expertise in enhancing the graphical user interface (GUI) by skillfully implementing Dear ImGui in C++, thereby significantly improving system functionality and user interactivity.

Awards & Achievements

2023 International Mathematical Contest in Modeling: Finalist **(Top *1%*)** in Interdisciplinary Contest in Modeling;

2023 "Huashu Cup" International University Student Mathematical Modeling Competition: Grand Prize **(Top *5%*)** in the National level;

Publications

Research Article

- Cheng, X., Wang, H., Tang, L., Jiang, W., Zhou, M., Wang, G. (2024). Open peer review correlates with altmetrics but not with citations: Evidence from Nature Communications and PLoS One. Journal of Informetrics, 18(3), 101540. https://doi.org/10.1016/j.joi.2024.101540
- Cheng, X., Chen, Q., Tang, L., Wu, Y., Wang, H., Wang, G. (2022). Rapid Response in an Uncertain Environment: Study of COVID-19 Scientific Research Under the Parallel Model. Risk Management and Healthcare Policy, 15, 339–349. https://doi.org/10.2147/RMHP.S351261

Academic Conference

- "Improved Simulated Viewing of Holographic Imagery", The 32nd Annual Newfoundland Electrical and Computer Engineering Conference, Canada, Nov 2023
- "Research on the Impact of Scientific Publications under Open Science", The International Association for Media and Communication Research (Suzhou Pre-conference), Soochow University, Suzhou, China, July 2022
- "Research on the Impact of Open Peer-reviewed Research Articles: a Case Study of Nature Communications", 2022 Chinese Sociological Association Conference, China, July 2022

Work Experience

National University of Singapore, Suzhou Research Institute Suzhou, China
AI-Education Research Assistant *March 2024 – Aug 2024*

- Reproduced various open-source AI models (eg. BERT, LLaMA), evaluated their performance, and created an online web page to showcase their results and outputs.
- Developed high-quality competition datasets using Python-based web scraping and AI techniques, creating a total of 200 high-quality question-answer pairs.
- Designed and built an online platform utilizing fine-tuned open-source models which can intelligently identify the specific row containing the problem and give Socratic inspirations, reducing code assessment time by 50%.

BOSCH, Suzhou Branch Suzhou, China
Data Security Officer *Sep 2023 – Feb 2024*

- Designed and developed custom Selenium tools to streamline the report generation process, enhancing the efficiency of regular data management and ensuring adherence to software criteria, resulting in a time savings of 8 hours per week department-wide.
- Employed JavaScript to enhance a gaming web page, facilitating the sharing of data security knowledge.

Bank of Communications, Yangzhou Branch Yangzhou, China
Data Analyst *July 2022 – Aug 2022*

- Performed in-depth quantitative and qualitative research to assess customer preferences, producing weekly reports delivering actionable insights for optimizing the strategic positioning of financial product promotions.
- Leveraged BERT model in Python to enhance predictive accuracy for user demand in the financial sector, achieving a notable 10% improvement compared to previous prediction methods.
- Partnered closely with the Marketing team to integrate data-driven suggestions into the targeting strategy for financial product advertisements, yielding tangible gains in customer engagement and conversion rates.

Extracurricular Activities

News Press of Soochow University
Head of Data Journalism *Sep 2022 – Aug 2023*

- Initiated and executed a pioneering Data Journalism initiative, taking charge of comprehensive data collection, rigorous analysis, and the creation of engaging visual representations to effectively communicate insights.
- Led and managed a dynamic team of data analysts and journalists to produce data-driven news stories, ensuring accuracy, relevancy, and timeliness in reporting.

Skills

Programming: Python (BERT, Web Crawler), C++, CUDA, Java , Blender, Unity, JavaScript

Languages: English (IELTS 7.5), Mandarine (Native)

Sports: Core member of Soochow University Badminton team; Ranked 16th of 18th Jiangsu Province Swimming Game