Sigao Li

MSc Student
University of Bristol Business School

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RESEARCH INTERESTS

- Location Decision-making
- Healthcare and Public Health
- Complex Network Systems
- Social Media and Web Analytics
- Spatial Interaction
- GeoAI and GIScience

EDUCATION

Aug 2025(Exp)	**MSc** in Business Analytics	*University of Bristol* - **Bristol, EN, UK**
May 2024	**Cert.** in Artificial Intelligence	*University of Toronto* - **Toronto, ON, CA**
Dec 2023	**Cert.** in Data Science	*University of Waterloo & University of Toronto* - **Kitchener, ON, CA**
Oct 2023	**MSA** in Spatial Analysis	*Toronto Metropolitan University* - **Toronto, ON, CA**

- Research Paper: Analyzing Lowe's Failure in Canada from a Geographical Perspective

Jun 2022	**BA(Hons)** in Geographic Analysis | **Minor** in Economics	*Ryerson University* - **Toronto, ON, CA**

- Research Paper: The Impact of Population Distribution in the Toronto CMA on Ethnic Retail Location

RESEARCH EXPERIENCE

Jul 2024 – Present **Research Assistant** *University of Bristol* - **Bristol, EN, UK**
- Transforming Care Quality Commission inspection reports into NLP features, utilizing Dirichlet Allocation and Econometric Modelling to identify care home operational challenges
- Collecting key references in operations management, social media analytics and public health, carrying out literature reviews of potential research directions

Mar 2024 – Sep 2024 **Research Assistant** *Cognitive Aging Lab & Toronto Metropolitan University* - **Toronto, ON, CA**
- Coordinated the planning and conduct of the "Aging in Community" Symposium.
- Preprocessed questionnaire data for the "Active Aging Training" Project's focus group.
- Proofread the "Future Thinking" Project questionnaire and provided document translation.

Sep 2022 – Dec 2022 **Research Assistant** *Ryerson University* - **Toronto, ON, CA**
- Analyzed questionnaire data using Regression Analysis to examine the correlation between store accessibility, consumption frequency, and consumer health status.
- Modelled consumer trajectories with Network Analysis to determine the consumer's activity area and enhanced address accuracy by Geocoding with Google APIs.

Jul 2022 – Aug 2022 **Research Assistant** *Ryerson University* - **Toronto, ON, CA**
- Developed an ETL pipeline in Python to aggregate Toronto GTA election results and identify candidates' races to examine electoral diversity and inclusion.
- Conducted exploratory data analysis and created Excel pivot tables for data interpretation.

INTERNSHIP EXPERIENCE

Jan 2023 – Apr 2023 **Geospatial Data Analyst** *PiinPoint* - **Kitchener, ON, CA**
- Implemented k-nearest neighbours algorithm for customer segmentation and built an urbanization index for market screening, optimizing the retail network by 15%.
- Integrated machine learning algorithms into GIS workflows and revamped enterprise database schema with Devbox, enhancing operational efficiency by 30%.

Jun 2021 – Aug 2021 **Business Analyst** *iQIYI, Inc.* - **Shanghai, SH, CN**
- Conducted market research on "How to transform film and television entertainment intellectual property into offline business ventures", and "Emerging trends in large Brick-and-Mortar complexes".
- Devised data-driven site selection strategies that guided corporate transformation initiatives, and presented comprehensive demonstration reports to company executives.

Apr 2021 – Jun 2021	**Data Analyst**	*MioTech* - **Shanghai, SH, CN**

- Conducted ESG research by leveraging Excel and BI software for web scraping economic data from government and revenue agencies, reducing data collection time by 50%.

Feb 2021 – Apr 2021	**Product Analyst**	*Sohu.com Limited* - **Beijing, BJ, CN**

- Collaborated with the development team on competitive research, performed diagnostic analysis of user behaviour, identified trends and patterns, and boosted user engagement and retention by 20%.

PROJECTS

Jun 2024 – Jun 2024	**Site Selection for Public Transportation Systems**	**GitHub Link**

- Developed a location selection model for electric vehicle charging stations using network analysis, Mixed-integer Linear Programming and Multiple-Criteria Decision-Making for trade area analysis.

Jan 2024 – Apr 2024	**Intelligent Agent for Portfolio Strategy Optimization**	**GitHub Link**

- Designed a stock trading agent using transformer models for price prediction, genetic algorithms and modern portfolio theory to achieve strategy optimization that maximizes risk-adjusted returns.

VOLUNTEERISM

Jul 2024 – Present	**Academic Assistant**	*Chinese Students and Scholars Association Bristol* - **Bristol, EN, UK**

- Collecting academic resources, writing WeChat articles on admission timelines, and helping students understand key milestones in the admission process.

Apr 2024 – Present	**Director, GISource**	*GISphere* - **Worldwide**

- Collaborating with a cross-functional team in the development and deployment of a custom LLM chatbot based on multiple AIGC platforms for information collection and technical support.
- Led a team of 4 using Agile methods to design an Azure-based ETL pipeline to scrape and load Google Sheet data into a MySQL database, reducing task time by 80%.
- Published over 50 blogs about GIS-related program applications with more than 50k reads.

May 2022 – Mar 2024	**Campus Partner**	*GISphere* - **Worldwide**

- Promoted strategic cooperation with Esri China, and organized the "GIS Open Course Week for International Students" event, attracted more than 10k views.
- Co-produced "GISphere Study Abroad Guide - Big Data Report White Paper(2023)".

Aug 2021 – Aug 2022	**Campus Ambassador**	*GeoScene Information Technology Co. Ltd* - **Beijing, BJ, CN**

- Spearheaded international promotional campaigns, expanded to over 300 universities worldwide and attracted more than 10k students, achieving a 15% increase in promotional material downloads.

HONOR & AWARDS

May 2024	**Think Big Postgraduate Scholarship(£6,500)**
Aug 2023	**Canadian Cartographic Association Mapping Competition**

- President's Prize Winner(1st) at University Level

May 2023	**Graduate Development Award(C$700)**
Sep 2022	**Arts Grad Funding Spatial(C$5,000)**
May 2021	**Global University Python Quantitative Simulation Investment Competition**

- Individual Final: 6th; Group Semi-finals: 3rd

Aug 2020	**GLO-BUS Business Strategy Simulation**

- Ranked into "Global Top 50 Performance Criteria"

Sep 2018	**Guaranteed and Renewable Scholarship(C$500)**

TECHNICAL COMPETENCIES

Data Analytics: Python, R, SPSS, SQL, NoSQL, JavaScript, HTML, CSS, Databricks, Hadoop, AWS, Git, Linux

Frameworks: PyTorch, TensorFlow, Keras, scikit-learn, NLTK, NetworkX, PuLP, Pyspark, GeoPandas, ArcPy

Others Tools: Tableau, Power BI, Google Analytics, Qualtrics, Esri Suite, QGIS, AutoCAD, Microsoft Suite