

Sigao Li

MSc Student
University of Bristol Business School

✉ sigao.li@outlook.com 🌐 sigao.com
☎ +44(788)725-5031 🏠 SigaoLi

RESEARCH INTERESTS

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

EDUCATION

- Aug 2025(Exp) **MSc in Business Analytics** *University of Bristol - Bristol, EN, UK*
• Research Paper: Understanding and Predicting Regularity, Diversity, and Adaptability in Human Mobility
- 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

- Dec 2024
– Present **Research Assistant - Transportation Big Data** *University of Bristol - Bristol, EN, UK*
• Using public GPS trajectories from Open Street Map to understand and predict regularity, diversity, and adaptability in human mobility patterns.
- Jul 2024
– Present **Research Assistant - Natural Language Processing** *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*
• Preprocessed questionnaire data for the "Active Aging Training" Project's focus group.
• Proofread the "Future Thinking" Project questionnaire and provided document translation.
• Coordinated the planning and conduct of the "Aging in Community" Symposium.
- Sep 2022
– Dec 2022 **Research Assistant - Health Geography** *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 - Geographic Information System** *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.
• Wrote tutorial guides on trade area calculation methods for graduate students in the lab group.

INTERNSHIP EXPERIENCE

- Jan 2025
– Apr 2025 **Business Analytics Consultant** *IBM & University of Bristol - Bristol, EN, UK*
• Designing a web-based portal that leverages natural language processing to perform sentiment analysis on the company's annual report, tweets and responses.
• Performs MOST, SWOT and PESTLE analysis based on the report and visualises the results.
- 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%.

Sep 2022 – Dec 2022	GIS Database Steward <i>St. Michael's Hospital & Toronto Metropolitan University - Toronto, ON, CA</i>	<ul style="list-style-type: none"> Conducted spatial analysis using multivariate regression on neighbourhoods in Southern Ontario to evaluate the Modifiable Areal Unit Problem in health research. Identified geographic variations in predictors of diabetes prevalence, emphasizing the impact of spatial data aggregation on research accuracy.
Jun 2021 – Aug 2021	Business Analyst <i>iQIYI, Inc. - Shanghai, SH, CN</i>	<ul style="list-style-type: none"> 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 <i>MioTech - Shanghai, SH, CN</i>	<ul style="list-style-type: none"> 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 <i>Sohu.com Limited - Beijing, BJ, CN</i>	<ul style="list-style-type: none"> 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%.

VOLUNTEERISM

Jul 2024 – Present	Academic Assistant <i>Chinese Students and Scholars Association Bristol - Bristol, EN, UK</i>	<ul style="list-style-type: none"> Collecting academic resources, writing WeChat articles on admission timelines, and helping students understand key milestones in the admission process.
Apr 2024 – Present	Director, GISource <i>GISphere - Worldwide</i>	<ul style="list-style-type: none"> 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 <i>GISphere - Worldwide</i>	<ul style="list-style-type: none"> 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 <i>GeoScene Information Technology Co. Ltd - Beijing, BJ, CN</i>	<ul style="list-style-type: none"> 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	President's Prize Award, Canadian Cartographic Association Mapping Competition
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: 6 th ; Group Semi-finals: 3 rd
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
Certificates:	Artificial Intelligence(University of Toronto), Data Science(University of Waterloo)