# Sigao Li

MSc Student
University of Bristol Business School

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## EDUCATION

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| 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

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| 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

## INTERNSHIP EXPERIENCE

**Jul 2024 – Present**

**Research Assistant** — *University of Bristol* - **Bristol, EN, UK**

- Transforming CQC inspection reports into NLP features, applying Latent Dirichlet Allocation, Sentiment Analysis and Econometric Modelling to identify care home operational challenges.
- Collecting key references in operations management and social media analytics, 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.

**Jan 2023 – Apr 2023**

**Geospatial Data Analyst** — *PiinPoint* - **Kitchener, ON, CA**

- Implemented Clustering Algorithms 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**

**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.

**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%.
- Developed analytical dashboards using BI software to display key performance indicators effectively.

**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

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| Sep 2024 – Dec 2024 | **Site Selection for Public Transportation Systems** | **GitHub Link** |

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

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| 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.

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| Sep 2023 – Dec 2023 | **Forest Fire Monitoring Using Deep Neural Network** | **GitHub Link** |

- Transformed satellite imagery into NLP features and developed a CNN model that utilized batch normalization, dropout, and data augmentation for wildfire detection, achieving over 97% accuracy.

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| Sep 2023 – Dec 2023 | **Real-Time Credit Card Fraud Detection** | **GitHub Link** |

- Integrated Apache Kafka and Pyspark for real-time data streaming and distributed data processing, and leveraged custom MLlib transformers and FNN models to detect fraud with an accuracy of 99%.

## VOLUNTEERISM

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| 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.

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| 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.

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| 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)".

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| 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

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

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

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| 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

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

- Ranked into "Global Top 50 Performance Criteria"

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

## TECHNICAL COMPETENCIES

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| **Data Analytics:** | Python, R, SPSS, SQL, JavaScript, HTML, CSS, Databricks, Hadoop, Azure, AWS |
| **Frameworks:** | PyTorch, TensorFlow, Keras, scikit-learn, NLTK, NetworkX, PuLP, Pyspark, GeoPandas |
| **Others Tools:** | Tableau, Power BI, Google Analytics, Qualtrics, AutoCAD, Esri Suite, Microsoft Suite |