MIN (MIA) SHI

Teaching Assistant, School of Economic, Political & Policy Sciences at UTD
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UTD Profile ◇ Personal Profolio

Education

The University of Texas at Dallas **August 2019 – May 2024** *(Expected)**
Ph.D. Candidate in Political Science, Major International Relations, Minor Political Institutions and American Politics
GPA: 3.942/4.0

The University of Texas at Dallas **August 2022 – May 2024** *(Expected)**
M.S. in Business Analytics *GPA: 4.0/4.0*

The University of Texas at Dallas **August 2021 – May 2024** *(Expected)**
M.S. in Social Data Analytics and Research *GPA: 3.942/4.0*

The University of Texas at Dallas **August 2022 – May 2023**
Graduate Certificate in Applied Machine Learning *GPA: 4.0/4.0*

The University of Texas at Dallas **August 2019 – May 2022**
M.A. in Political Science *GPA: 3.917/4.0*

Shandong University **September 2016 – June 2019**
M.L. in International Politics *GPA: 88.78/100*

Daito Bunka University **September 2017 – August 2018**
Exchange Student in Political Science

Shandong University **September 2012 – June 2016**
B.A. in Japanese *GPA: 87.37/100*

Teaching Experience

School of Economic, Political and Policy Sciences, UTD *Teaching Assistant* **August 2019 – Present**
Graduate Teaching Assistant for:
GOVT 2305 American National Government
GOVT 2306 State and Local Government
EPPS 2302 Methods of Quantitative Analysis in the Social and Policy Sciences
PSCI 3301 Political Theory
PSCI 3325 American Public Policy
PSCI 3328 International Relations
PSCI 3350 Comparative Politics
PSCI 4348 Terrorism, PPOL 4396 Topics in Public Policy
PPPE 6302 Conflict in Cyberspace
EPPS 6313 Introduction to Quantitative Methods

Research Experience

School of Economic, Political and Policy Sciences, UTD *Research Assistant* **May 2022 – Present**
↪ Prof. Jessica Hanson-Defusco

- Conduct in-depth research on cross-cultural corruption analysis, utilizing survey data to examine the experiences of college students with corruption and their perceptions of corruption in both the United States (US) and Mexico.
- Supervise undergraduate research assistants to ensure project completion, independent work, efficient collaboration, and adherence to deadlines.
- Collaborated with colleagues to collect original data from 245 WHO-reporting nations to evaluate the effects of the 2014-16 Ebola Crisis on WHO-reporting Nations' policy adaptations and 2020-21 COVID-19 response, performed statistical analytics, wrote comprehensive reports, and submitted findings to relevant journals.

School of Economic, Political and Policy Sciences, UTD *Research Assistant* **May – August 2021**
↪ Prof. Thomas Gray, Prof. Banks Miller

- Conducted data collection of 1291 Supreme Court cases using both manual and web-scripting techniques, ensuring accurate and comprehensive data capture.
- Utilized time-series models to analyze and assess the time gaps among the schedules of the court cases, providing insights into the temporal dynamics of the legal proceedings.

School of Economic, Political and Policy Sciences, UTD *Research Assistant* **May – August 2020**
↪ Prof. Jonas Bunte

- Collaboratively researched the benefit connections among US government officers, senators, representatives, and US firms based on the available newspaper databases.
- Conducted detailed data analysis to detect potential financial and social connections using regression models.

Scholarships

John Forrest Kain Scholarship **2023**

Government and Political Science Scholarship **2022**

Conferences

2024 SPSA Annual Conference — New Orleans, LA **January 10 - 14, 2024 (upcoming)**
Navigating the Waves of US-China Decoupling: A Comparative Analysis of Trade and Investment in Technology and Non-Technology Sectors

2023 ISDSA Meeting — Shanghai, China **July 4 - 6, 2023**
China's COVID Lockdown Policy and Trade with US: A Deep Learning Time Series Approach

2022 APSA Annual Meeting & Exhibition — Montreal, Quebec, Canada **September, 2022**
Framing 2018 US-China Trade War during the Trump and Biden Eras (Accepted)

2022 ISDSA Meeting — Notre Dame, IN, USA. **May 31-June 1, 2022**
Modeling US-China Trade Relations: A Time Series Machine Learning Approach Using MNC Stock Data

Publications

Yang Luhui, Shi Min. 2023. An Analysis of the Causes of Shinzo Abe's Policy Evolution and Adjustment towards China. *Journal of China's Neighboring Diplomacy.* Vol.11, No.2 (In press).

Yang Luhui, Shi Min. 2019. China Policy Adjustment or Changes by the Abe Administrations and Its Impacts. *Peace and Development.* No.3, pp.66-84.

Work Experiences

Onyx CenterSource *Data Science Student Consultant* **May 2022 – Present**
↪ Raju Pillai, Director of Data Engineering, Analytics and Architect

- Lead a team to develop an AI chatbot utilizing NLP, predictive models, and large-scale database queries.
- Utilize NLP and MySQL to analyze and query a vast database of 10 million+ rows, with high ETL efficiency.
- Develop an AI chatbot that reduced response times by 50% and resolve payment inquiries within minutes, improving customer satisfaction for travel agencies and Online Travel Agency (OTA) partners.
- Analyze chatbot interactions, resulting in actionable customer insights that informed strategic decisions, marketing efforts, and product/service enhancements, contributing to a 15% increase in user engagement.

Lucion Technology Corp., Ltd. *Technology Data Analyst* **July – August 2017**
↪ Xiuzhu Zhao, Minister of Technical Support and Cooperation Development

- Enhanced data extraction efficiency by 40% using MySQL, optimizing management of user data, service orders, billing, and network device data.
- Visualized complex network structures with Microsoft Visio, aiding structure understanding and decision-making.
- Generated weekly analysis reports, extracting insights from user structure analysis and competitor research.

Data Analytic & ML Projects

Analysis of the Effect of COVID-19 on US Trade and US Firms **May 2023 - July 2023**

- Synthesized data and created fixed-effect regression models to identify correlations and causal mechanisms.
- Developed and Implemented machine learning and deep learning models to conduct counterfactual analysis.
- Presented research at the 2023 Applied Data Science International Conference to 200 professionals, receiving recognition for clarity and actionable insights.

Branding Analysis **February 2023 - May 2023**

- Analyzed 1.3 million records, resulting in the identification of critical sales metrics via Python.
- Developed Tableau visualizations to evaluate market shares, strengths, and weaknesses of top brands, aiding in competitive analysis and strategy formulation.
- Utilized SAS for fixed-effect regression and time series models, enhancing predictive capabilities for branding firms' future directions and supporting strategic planning.

Big Data Analytics and Visualization **August 2022 - November 2022**

- Processed geospatial data with Hadoop, Sqoop, Impala, Pig, and Spark, enabling streamlined data management.
- Created Tableau visualizations connected to the Hadoop ecosystem, facilitating comprehensive insights.
- Conducted regression models, identifying causal inferences and providing actionable recommendations for data-driven strategies.

Payroll Management System Database Design via MySQL **June 2022 - August 2022**

- Led a group of five in conducting business requirements analysis and designing a payroll management database with MySQL consisting of 13 tables.
- Created stored functions, procedures, and triggers to calculate employees' payroll per two weeks, fill in new employee information, and send PTO reminders automatically.
- Performed extract-transform-load, data cleaning, and query optimization.

Modeling U.S.-China Trade War's Effect on US Firms using ML and Time Series **January 2022 - May 2022**

- A project aimed at exploring how the US-China trade war affects Multinational Corporations (MNCs) through an ML content analysis of policy changes and a time series GARCH modeling approach using stock data.
- Utilized Pandas, NumPy, Matplotlib & Seaborn in data cleaning, visualization, and transformation.
- Leveraged sentiment analysis to explore how the US frame 2018 US-China trade war
- Applied regression analysis in exploring the causal mechanism between trade war and S&P 500 revenues.
- Built machine learning (ML) models in predicting the profound influence of the trade war on US firms.
- Used time-series GRACH models to evaluate MNCs' revenue & volatility quantified via stock data in Stata.
- Presented at 2022 International Society for Data Science and Analytics Conference.

Content Analysis of News Coverage about US-China Trade War **August 2022 - May 2022**

- Led an analysis on how news organizations frame the 2018 US-China trade war during the 2018-2022 period.
- Leveraged machine learning skills such as top modeling and sentiment analysis to explore a collection of over 500 news articles.
- Implemented time-series analysis and chi-squared test in modeling sentiments change tendencies among news coverage.

COVID-19 Worldwide Cases Synchronous Dashboard using Tableau **December 2021 - January 2022**

- Designed a synchronous Tableau dashboard with advanced interactive functions to explore the COVID-19 severity.
- Built a Tableau story to dig into the factors affecting the severity of COVID-19 by country and found out the deep connection between multiple aspects of factors with COVID-19 severity.

Data Visualization and Correlation Analysis with Multiple Tools **September 2021 - December 2021**

- A project aimed at exploring the factors that affect World Happiness Index by country.
- Utilized Python and R in data collection and data cleaning processes.
- Deployed Python, R, R Shiny and Plotly Dash in exploring correlation among variables and visualizing the correlations.

Selected Course Work

Data Science	Data Management	Data Modeling
Deep Learning	Big Data	Predictive Analytics for Data Science
Natural Language Processing	Cloud Computing Fundamentals	Modeling for Business Analytics
Causal Analytics and A/B Testing	Database Fundations for BA	Regression and Multivariate Analysis
Programming for Data Science	Information Management	Applied Data Analytics with Python
ML for Socio-Eco and Geo Data	Data Collection	Applied Regression
Content Analysis using ML	Data Visualization	Introduction to Quantitative Methods
OOP in Python	Digital Consulting Project	Social Science Research Methodology

Technical Skills

Programming	Python, R, SQL, Stata, SAS
Tools	Alteryx, Tableau, Jupyter Notebook, Excel Charts, R Shiny, LaTeX & TeX
Database & Big Data	MySQL, PostgreSQL, Mango DB, Amazon RDS, Hadoop, Sqoop, Hive, Impala, Pig, Spark
Automation	Alteryx, Appian, Accelq, Uipath
Certificates	Graduate Certificate in Applied Machine Learning at UTD, Google Data Analytics, AWS Certified Cloud Practitioner, Alteryx Designer Core Certificate, Appian Certified Associate Developer, ACCELQ Automation Engineer
Languages	English, Chinese, Japanese

Career Goals

I am pursuing a Ph.D. in Political Science, specializing in International Relations with a minor in Political Institutions and American Politics. Additionally, I am a master's student in Social Data Analytics and Research, as well as Business Analytics. My research examines the impact of the global leadership, economic and technological dominance competition between the United States (US) and China, the two world-leading powers, on US multinational corporations (MNCs).

I am dedicated to advancing my academic and professional endeavors to become a skilled political and data scientist. My focus lies in effectively using a wide array of data sources to investigate topics within international political economics, particularly emphasizing the dynamics of US-China relations. I aim to create sophisticated models that shed light on the complex interrelationships among macro and micro variables in politics and economics, specifically regarding the impact on the performance of US multinational corporations. Through leveraging the capabilities of data analytics, my ambition is to derive practical insights that can guide decision-making processes based on data-driven approaches.