

Wanlin Chen

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EDUCATION

University of Southern California GPA 3.8	Los Angeles, CA
Master of Science, Spatial Economics and Data Analysis	May 2023 (Expected)
Tianjin University of Technology GPA 3.9	Tianjin, China
Bachelor of Science, Business Administration	Jun 2022

EXPERIENCE

Huntington-USC Institute of California & The West ArcGIS Pro	Los Angeles, CA
Research Assistant	Feb 2023 - Present

- Compared the performance of various GIS georeferenced methods including first-order polynomial, adjust, and projective transformation, expanding the accuracy of the map alignment.
- Executed data entry, assisted with data quality issues, and resolved data discrepancies by analyzing spatial relationships and standard errors at control points.
- Innovated an interactive digital map incorporated with AR technique, serving as a valuable resource for scholars, researchers, and members of the public interested in exploring the history and cultural heritage of Los Angeles.

YueFu Technology Company Python	Guangzhou, China
Data Analyst Intern	Apr 2021 - Jul 2021

- Drove progress in the Southern China Food and Beverage Manufacture Project by utilizing Python to extract data of over 300,000 land transactions and perform exploratory data analysis to explore economic opportunities and deliver valuable insights in the industry.
- Segmented companies into distinct business groups, recognized characteristic distinctions between emerging and traditional industries, and created thematic maps to visualize the distribution of the industry to support analytic reports.
- Collaborated with cross-functional teams to define and prioritize key performance indicators, and generated dashboards and reports to track business performance and identify areas for improvement.

University Career Services Center SQL	Tianjin, China
Data Science Assistant	Feb 2018 - Jun 2018

- Applied E-R model and optimized queries, improving database performance by reducing prediction latency by 20% and eliminating 25% of duplicate entries.
- Extracted crucial employer data, including company locations, job descriptions, and salaries, from over 100,000 rows of data using SQL queries, creating accurate job postings increased applicant numbers.
- Leveraged regression modeling to examine the impact of employment metrics including unemployment rate, average hourly wage, and job growth rate, on student engagement with job postings, devising effective strategies for boosting engagement levels.
- Developed and implemented a user feedback system to gather input from students and employers, resulting in a 90% satisfaction rating among users and a 40% increase in platform utilization.

PROJECTS

Spatial Data Analysis	Aug 2021 - Dec 2022
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- Built spatial models to uncover COVID-19-induced changes on housing prices in New York City, and employed Monte Carlo simulation and Breusch-Pagan (BP) test to detect spatial autocorrelation and heterogeneity, ensuring validity of the models.
- Conducted geographic mapping analysis and k-means clustering algorithm to identify areas with disparities in insurance plan availability and utilization, and reveal a correlation with state political ideologies, informing policy decisions related to insurance plan distribution and design.
- Cleaned spatio-temporal raw mortality statistics data logs focusing on fatal encounters, and analyzed the treatment effect of the use-of-force policy on the number of fatal encounters events in New York City by developing causal inference algorithms.

Consumer Behavior Analysis	Feb 2019 - Jun 2019
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- Performed market analysis and compared sustainable marketing strategies of L'Oreal and Shiseido through extensive research, customer interviews, and feature request analysis.
- Utilized advanced statistical models including exponential smoothing, ARIMA to analyze consumer pattern and predict purchase rates, conducted PCA to identify latent variables driving consumer behavior, and employed NLP model to categorize website feedback based on positive and negative sentiment to provide actionable recommendations for marketing.
- Designed and executed A/B testing to evaluate advertising strategies and optimize critical metrics for increased customer engagement and conversion rates.

SKILLS

- Software: ArcGIS Pro; Stata, MS Access, Microsoft Office Suites, Tableau
- Programming Language: SQL; Python; R
- Language: English, Chinese (Mandarin and Cantonese)