Xinge Zhang

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SUMMARY

Seeking a full-time or internship position as a Data Analyst or Spatial Data Analyst, proficient in:

- **Analysis & Modeling:** Statistical Modeling, Machine learning, Deep learning, A/B Testing
- **Analysis Tools:** R, Python, SOL, ArcGIS, CARTO, HTML, CSS, **Tableau**, Microsoft Office
- **Visualization:** Adobe Suite (Photoshop, Illustrator), Rhino, AutoCAD

EDUCATION EXPERIENCE

MS, **Urban Spatial Analytics** (GPA: 3.7) *(STEM-Certified) University of Pennsylvania, Philadelphia, PA* Aug2021-May2023

BE, **Landscape Architecture** (GPA: 3.9) *Beijing Forestry University, Beijing, China* Aug2017-May 2021

PROJECT EXPERIENCE

Part-time Project Assistant, EYP Consulting Dec 2022 - Present

- Assist in completing **healthcare consulting projects**, independently complete store research, 2 **brand case studies** to assist in the design of broad strategies and selection of target consumers
- Assist in conducting expert interviews, improve and translate the PowerPoint for client reporting
- **Estimated the sales volume** of an OTC product in China for one year, and collected a lot of benchmark product names, prices, and offers.

Predictive Bikeshare With Temporal & Spatial Effect in New York City (Machine Learning, Python, R): Link Oct 2022

- Extracted 250, 000 hour-base trip data from Citi bike New York, and 3 weather factor datasets from Automated Surface Observing System using Python **Beautiful Soup**.
- Built several **multilinear regression** and **cross-validation models** to forecast the bike usage times for each station and achieved 92% average accuracy using Python scikit-learn.
- Integrated **spatial clustering** and **time lag feature** to optimize the model performance and achieved accuracy improvement by 5% over the original business-as-usual approach.

Resident Behavior Prediction & Cost-Benefit Optimization (Machine Learning, Python): Link Nov 2022

- Analyzed consumer data in taking tax credits, and conduct **Feature Engineering** (combined options under predictors, or transfer numeric variables into categorical variables) to better distinguish between taking and not taking credits
- Applied **Logistic Regression** for machine learning, and performed Validations with baseline model to improve accuracy
- Constructed a business **Cost-Benefit Equation** and defined an **Optimal Threshold** for the business to maximize its profits

A/B testing on Email Marketing Campaign For Mei tuan (Python, A/B Test, Time Series)

Remote, China Jul 2022 – Aug 2022

- Performed email multi-arm experiment on 480,000 users divided into 24 treatments groups to achieve **a higher conversion rate**
- Calculated email open rate in treatment groups, obtained the effective emails, and identified the best user segment group from the open rate heatmap visualization with **Seaborn.**
- Built a data frame including link, activity, and conversion rate with **Pandas** for the 24 treatment groups
- Conducted **one sample proportional A/B test** on treatment and control groups and concluded the statistical correlation between email campaign strategy and conversion rates.
- Performed time series analysis and offered the strategy to increase email sending frequency by 55% to achieve an expected higher open rate.

RESEARCH EXPERIENCE

Department Assistant, University of Pennsylvania Aug 2022 - Present

- Performed exploratory data analysis on the practicum project, classified and visualized data using **R.**
- Run advertisement campaigns for the department's social media (Twitter, Instagram, Facebook)**.**

Research Assistant, University of Pennsylvania Nov 2021 - Mar 2022

Exhibition design of Globescape art installation project in the "New-Eco Vision" exhibition in CAFA Beijing.

- Performed exploratory data analysis on the ecological project, classified and visualized geodata using **GIS.**
- Built laser cut test models to perform different exhibition effects and weekly report results to the manager**.**

National Entrepreneurship and Innovation Program, Beijing Forestry University Jul 2019 - Dec 2020

Restoration Research on the Landscape Image of the Ancient Canal based on <Beijing· Water Conservancy>