SHAUN ZHENG

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As a life-long learner and motivated data scientist with years of learning experience, I strive to pose and answer questions with data-driven insights. I am passionate about taking challenges and building models that fix real world problems.

SKILLS

- Programing: Python (Scikit-learn, Pandas, NumPy, Pyspark), R (Tidyr, Caret), SQL
- Data Visualization: JavaScript, HTML, CSS, Python (Matplotlib, Seaborn, Altair, HoloViz), Tableau
- Hands-on experience: A/B Testing, Machine Learning(Random Forest, Bayesian, K-Means), Time Series Analysis, Spatial
- Analysis, Dashboard, Computer Vision, NLP, Convolutional Neuro Network, Open-source Hardware & Programming
- Others: Git, Spark, Statistics, System Thinking & Problem Solving

EDUCATION

UNIVERSITY OF PENNSYLVANIA	Philadelphia
Master of Urban Spatial Analytics – GPA: 3.94/4	2021 - Present
TONGJI UNIVERSITY	Shanghai
B.S. Industrial Design – GPA: 3.90/4	2017 - 2021

PROJECTS

USER BEHAVIOR PREDICTION & COST-BENEFIT OPTIMIZATION - 80% Improvement in Predictions Link

- 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 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

TRANSPORTATION PREDICTION WITH TEMPORAL & SPATIAL EFFECTS - Avg 2.7-minute Prediction Error Link

- Wrangle Ground Truth Data, and visualized existing delays for each line and stations in Hour-by-Hour Temporal Granularity
- Constructed Time Fixed and Lag Indicators, and applied Feature Engineering: Interaction, Logarithmic transformations etc.
- Built a Segment Model System using logistics regression to classify firstly and apply OLS regressions respectively
- Cross Validated models and examined Generalizability in different scales, and designed User Interface for clients

IMAGES SEGMENT EXTRACTION & ANALYSIS - Relationship btw Street Components and Race & Equity Link

- Scrapped 12,000+ Bing Street View images in Philadelphia Road Net through Bing API
- · Applied Computer Vision Techniques to do the street Components & Proportions Extraction from image collections
- Conduct Spatial Operation with community demographic data, and crime data to explore the society equity topic

(ONGOING) FOOT TRAFFIC PATTERN ANALYSIS & MARKET AREA DELINEATION Link

- Collaborated with Philadelphia Parks & Recs Department to better program resources among 500+ facilities
- Utilized SafeGraph pattern data to cluster with attendance data using Unsupervised Learning to find relationships
- Created & published R packages, 'Socially Aware Huff Model', and established operation Dashboard Link

WORK & EXPERIENCE

PENN DATA SCIENCE GROUP

Kaggle Competition Team Member

- Participated in 5 Kaggle Data Science Competitions to solve business problems with machine learning methods
- Learned new techniques, and chatted with data science professions from different industries at campus

JLL

Data Analyst Intern

- ETL pipelines (Airflow) & interactive dashboards to track the price and transactions for logistics properties in Shanghai MSA
- Conducted macro and micro geospatial and market analyses in 10+ consulting reports for Top500 clients from FMCG, Medicine, Food, Chemical, and Automotive Manufacturing industries etc
- Optimized logistics and supply chains for 2 clients based on cost data modeling and scenario comparisons

CREATER

Business Analyst Intern

- Supported president with analysis and research in project strategies for more than 5+ international pitches
- Proposed business-optimized solution using data analysis to predict cash flow and balance cost in construction and operation
- · Assisted with general manager in managing cooperation among investors, governments, designers, and constructers

Shanghai Apr. 2019 – Dec. 2019

Feb. 2021 - Jul. 2021

Philadelphia Jan. 2022 – Present

Shanghai