Zhongyan (Daniel) Liang
810 O St. NW, Washington, DC 20001
LiangZhongyan831@gmail.com | (240)-646-6018 | [Linkedin](#) | [Github](#)

Education and Coursework

American University   Sept. 2018 - May 2020
Master of Science in Biostatistics, STEM

University of Maryland College Park   Graduated 2017
Bachelor of Science - Nutrition and Food Science

Relevant Coursework

Machine Learning, GLM, Regression, Advanced Biostatistics, Data Science, Business Analytics

Professional Experience

Capital One   **McClean, VA**
Senior Business Analyst   February 2022 - Present
- Delivers high value data, analysis, & reporting solutions to support company's flagship digital servicing platform, which is used by over 40 million monthly active users and supported by over 500 internal software engineers
- Writes complex SQL queries in Snowflake to transform and prepare datasets into a usable and easily accessible format for analysis across over 100+ analysts among the enterprise
- Creates Tableau and Quicksight dashboards related to resiliency efforts, internal users, technology changes to promote data driven actionable business insights across teams
- Works closely with IT and HR to deliver data science solutions helping stakeholders and C-suite leadership understand improvement drivers, resource prioritizations and actionable insights
- Assisted with design and implementation of Agile practices to ensure mobile / web platform production capabilities
- Developed data pipeline in Databricks to automatically ingest, store and process data from AWS platform
- Built an ordinal logistic regression model with survey data to identify key factors contributed to platform user popularity
- Validated and optimizes model accuracy using Random Forest, Larsso, LDA machine learning algorithms in R

Centurion Health   **Vienna, VA**
Data Analyst   Jan. 2020 - Jan. 2022
- Assisted with the development of a SARS-CoV-2 tracking, analytics and reporting platform to support prioritization of medical resources
- Designed experiments to explore the link between COVID cases, population, age, race, etc. in SAS
- Partnered with finance to optimize forecasting capabilities of pharmacy budgeting and accruals in R
- Crafted SAS code to analyze healthcare utilization and prescription spending among inmate-patient populations
- Employed Tableau for visualized analysis of leadership and staff programs, optimizing effectiveness, efficiency and helping to inform key corporate decisions
- Built a regression model to predict prescription demand by evaluating patient and prescriber prescription patterns
- Customized Excel templates using complex formulas, macros and VBA to match client specific requirements

Projects and Research

Statistical Research Assistant for the ["Algorithms for Threat Detection"](#) Project   Jan. 2019 - Dec. 2019
- Used Markov Random Field to build logistic regression models from 911 call data during 2015 Baltimore riots
- Applied pseudo-likelihood estimation to maximize essential parameters to detect change points
- Predicted possibility of large-scale violence through detection of change-points in Markov Chains
- Conducted tests such as VIF, Stepwise Variables Selection, Linear and Quadratic Discriminant analysis, KNN, and Random Forest to cross-validate and further optimize the model

Skills

Coding Languages: SAS (Base and Advanced Certified), R, SQL, Python
Software: Tableau, Advanced Excel (Certified), SPSS, SAS Enterprise Guide
Technical Specialties: Web-scraping, Data Warehousing, Predictive Analytics, Regression, Big Data, Pricing & Budgeting Analytics, Data Visualization, Dashboard Reporting Automation, Markov Chains
Languages: English, Chinese (Mandarin)