

Enju Zhang

Data Analytics
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EDUCATION

COLUMBIA UNIVERSITY	BIostatISTICS	SEPT 2023 - MAY 2025
UNIVERSITY OF CALIFORNIA AT DAVIS	APPLIED MATHEMATICS	SEPT 2018 - JUN 2023

WORK EXPERIENCE

PRICEWATERSHOUSECOOPERS, CYBERSECURITY	JULY 2021 - SEPT 2021
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Responsibilities
Conducted in-depth data analysis and managed projects focusing on Data Capability Maturity Model (DCMM) evaluations, contributing to the development of a robust data management and capability maturity assessment framework. Spearheaded legal research initiatives to align data collection and management practices with evolving privacy and data security legislation.

Accomplishments
Orchestrated a large-scale research project involving interviews with 37 DCMM evaluators, culminating in an authoritative report that navigates enterprise responses to data security laws. Successfully identified and mitigated data security risks, enhancing corporate security governance and compliance strategies. Published a comprehensive analysis on the safety risks associated with intelligent connected vehicles and reviewed corporate data export compliance measures.

ALIBABA GROUP, BUSINESS ANALYTICS	JULY 2022 - SEPT 2022
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Responsibilities
Employed advanced data analytics and mining techniques to enhance decision-making processes. Specialized in user behavior analysis, data cleansing, and the transformation of raw data into actionable insights, supporting business intelligence and market trend analysis.

Accomplishments
Executed a detailed analysis of user transactions, utilizing RFM (Recency, Frequency, Monetary) scoring for segmentation and customer lifecycle management. Provided actionable insights through group analysis, contributing to product development and user satisfaction strategies. Advanced user engagement analytics and implemented an anomaly detection system to ensure data integrity.

RESEARCH

IMPERICAL COLLEGE LONDON, INFECTIOUS DISEASE KINETICS STUDY WITH COVID-19 AS AN EXAMPLE	FEB 2022 - MAR 2022
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Responsibilities
Applied infectious disease modeling techniques to process, analyze, and visualize COVID-19 trend data. Utilized predictive models such as SEIRD, SIR, and SEIR to forecast COVID-19 trends and evaluate public health strategies.

Accomplishments
Managed the acquisition, preprocessing, and analysis of epidemic prevention measures, such as reproduction numbers, herd immunity, quarantine protocols, and vaccination strategies, employing the model state utility. Conducted in-depth comparative analyses of the SEIRD data model against contemporary epidemiological models like SEIR and SIR, specifically in the context of the COVID-19 pandemic. Engaged in critical evaluation and team discussions on the application of parameter estimation and Basin-Hopping algorithms to align with epidemic data. Accountable for examining the impact of mainstream infectious disease models on population heterogeneity, stochastic processes, and spatial structures. Utilized an enhanced SEIR model to forecast the COVID-19 trajectory, achieving data fitting accuracies of 91.66% and 83.17% for Beijing and Shanghai, respectively, during the September to December 2021 timeframe.

SKILLSET

SOFTWARE	PYTHON, R, SAS, EXCEL, MATLAB, STATA, LaTeX
CS THEORY	CRYPTOGRAPHY, MACHINE LEARNING, DISCRETE MATHS, DATA STRUCTURES
STATISTICS	REGRESSION, STUDY DESIGNS, PROBABILITY, STOCHASTIC PROCESSES, BAYESIAN STATISTICS
MATHEMATICS	CALCULUS, ALGEBRA, REAL ANALYSIS, NUMBER THEORY, PDE & ODE
BIostatISTICS	CLINICAL TRIALS, HEALTH SYSTEMS, ADVANCED EPIDEMIOLOGY, PHARMACEUTICAL STATISTICS

ACTIVITIES

CSSA CALIFORNIA	CORE MEMBER	MAR 2021 - JUN 2023
STATISTICAL METHODS	TEACHING ASSISTANT	MAR 2022 - JUN 2022
WILLETT ELEMENTARY	MATHS TEACHING ASSISTANT	MAR 2023 - JUN 2023
COLUMBIA UNIVERSITY COMPUTING CLUB	ORGANIZER	FEB 2024 - TO DATE

CERTIFICATE

ACADEMICS	DEANS' HONOR LIST	2020
SOFTWARES	SAS CERTIFICATE, R CERTIFICATE, PYTHON CERTIFICATE, IBM DATA ANALYTICS CERTIFICATE	2023 - 2024