CHENFENG LI

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EDUCATION

MS Statistics | University of Chicago

Relevant Courses: Reinforcement Learning, Trustworthy Machine Learning, Generalized Linear Model Scholarships: Tuition Scholarship of Statistics Master Program (2022, 2023)

BS Mathematics | Chinese University of Hong Kong (CUHK) Major Concentration: Computational Big Data Analytics; Minor: Statistics Scholarships and Honors: BS degree with First Class Honor (2022), Undergraduate Mathematics Scholarship (2021), College Scholarships (2019, 2022)

SKILLS and CERTIFICATIONS

Programming: Python, R, C, C++, JavaScript, PHP, SQL

Technical Skills: Machine Learning (TensorFlow, PyTorch, scikit-learn), Data Processing (Excel, Pandas), Data Visualization (Matplotlib, Tableau), Statistical Analysis (regression, time series, Bayesian), Databases, Algorithms Language: English (Fluent, IELTS: 7/9), Mandarin Chinese (Native), Cantonese (Native) Certifications: Deep Learning Specialization from DeepLearning.AI (Coursera), Google Advanced Data Analytics Specialization from Google (Coursera), Web Application for Everybody Specialization from UMich (Coursera)

WORKING EXPERIENCE

Statistical Consultant | Department of Statistics, UChicago

- Worked in a team of five consultants. Analyzed requirements from clients about data issue. Communicated with clients to verified details. Provided recommendation in data analysis and delivered consulting report.
- Suggested logistic regression application and method of grouping the patient data for a study from UChicago Medicine about the impact of a COVID medication on ventilation.
- Recommended a study from UChicago BSD about the effect of Home-based Community Services (HBCS) on Post-Acute Care (PAC) to use logistic regression without propensity score weighting.
- Advised a study from UChicago Hospital about significant of chest-to-left ventricle distance on CPR to drop highly correlated covariates. Helped determine the required sample size and linear regression models.

RESEARCH EXPERIENCE

Project Leader | Department of Statistics, UChicago

Topic: Robustness to Spurious Correlations via Distributionally Robust Optimization (DRO).

- Reviewed the theory of DRO, built and evaluated a DRO neural network model, compiled reports.
- Led a team of three researchers. Communicated with members and organized tasks.
- Constructed a colored MNIST dataset with spurious correlations, wrote a DRO models and applied to the dataset. Made comparison with empirical model and tested the performance in general case. Concluded that the DRO model with strong regularization properly eliminates the influence of spurious correlations.

Data Analyst | Chung Chi College, CUHK

Capstone project. Topic: The current situation and feasible development direction of Chinese medicine.

- Collaborated within a four-fellows team. Explored the public perception, professional status and problems encountered of the Chinese medicine. Raised suggestions for its development and modernization.
- Designed and distributed online and paper-based questionnaire, processed regression analysis and visualization. Concluded overall positive view, with higher perception among older, less-educated group.

Independent Researcher | Department of Mathematics, CUHK

Topic: A General Review of Facial Recognition Technology.

- Reviewed the theories of facial detection and recognition methods proposed in the past decades.
- Implemented a facial recognition model through Convolutional Neural Network (CNN) on Python. Achieved a prediction accuracy of 80.6% on a dataset with 2,370 images from 37 individuals.

Sep 2018 - Jul 2022

Sep 2022 - Expected Jun 2024

Sep - Nov 2022

Apr - May 2023

Jun - Dec 2021

Sep - Dec 2020