Chuhan Li

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Education

Boston University (Boston, MA): B. A. double major in Computer Science and Statistics 2019.09 – present

- GPA: 3.94/4.00
- Relevant Coursework: Algorithmic Data Mining, Machine Learning, Stochastic Operations Research, Linear Model, ANOVA, Randomized Algorithm, and Decision Theory.

Projects

Spark! CBS Boston Project Boston, MA

CBS Brownfield Site Analysis 2021.09 – 2021.12

- Built end-to-end process of gathering, preparing, and storing four datasets from MassDEP.
- Trained EM, DBSCAN, and Mean-shift to cluster TCE released area and predict if there are hidden hazardous areas.

Amazon Movie Reviews Kaggle Competition Boston, MA

Amazon Movie Reviews Prediction 2021.09 – 2021.12

- Use the dataset from Amazon Movie Review. Apply PCA and CNN for feature extraction. Use NLTK to vectorize the text. Fit into the random forest, SVM, LR, Naïve Bayes, and Neural Nets. Get 95.6% accuracy on the test set.
- Apply data mining techniques to further explore the dataset by constructing graphs. Apply the randomized algorithm for graph clustering. Use Hashing, JL projection, and truncated SVD (LSA) for feature selection and emotion analysis.

Facebook Advertisement Dataset Project Boston, MA

Popularity Analysis of Advertisement of Facebook 2021.01 – 2021.05

- Augment the size of the dataset by creating random noises. Use LASSO, AIC, and BIC for variable selection. Use R for coefficient estimation, anomaly detection, inferential analysis, and causal inferences.

Professional Experience

GF Securities Wealth Management Dept Guangzhou, China

Product Analyst Intern 2021.07 – 2021.09

- Model the win rate of Snow structures' product, help manager make decisions based on decision theory and utility theory, model visitors' flowrate with continuous Markov model.

China International Capital Corporation Guangzhou, China

Summer Intern 2020.06 – 2020.07

- Get exposed to the Quantitate finance, implement linear regression model by hand, apply stochastic asset models (Black-Derman-Toy model and Longstaff-Schwartz model) in pricing the bond options.

Research Experience

Boston University Department of Computer Science Boston, MA

Research Assistant (Supervisor: Prof. Evimaria Terzi) 2022.01 – present

- Define the Fair Representative in summation way and maximized way. Develop an algorithm for finding the optimal fair representative in the social network using Gradient Descent and Linear Programming. Prove that the fair representative depends only on the local representative and the variance of each local cluster.

Teaching Experience

Boston University Department of Computer Science Boston, MA

Course Assistant of CS 131: Combinatorics Structure 2021.09 – present

- Topics include set theory, proof techniques, first-order logic, and deductive calculus.

Grader of CS 330: Introduction to Algorithm & CS 332: Theory of Computation 2021.09 – present

- CS 330: topics include s-t min-cut, max-flow, min-heap, DFS/BFS, and dynamic programming.
- CS 332: topics include DFA, TM, Mapping Reduction, time-space hierarchies, and complexity classes.

Skills

Programming Languages: Python (NumPy, Pandas, Seaborn, SkLearn, PyTorch, TensorFlow, Matplotlib), R, SQL
Languages: English (Advanced), Mandarin (Native), Cantonese (Advanced)