JIA WO

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EDUCATION

Lehigh University, Bethlehem, PA   expected Dec 2020
Master of Engineering in Industrial and Systems Engineering   GPA: 3.22/4.00 Major GPA: 3.56/4.00
Core courses: Intro to Machine Learning, Service Systems Engineering, Simulation, Optimization in Machine Learning
Donghua University, Shanghai, China   Sep 2012-Jun 2016
Bachelor of Arts in Management, Concentration in Accounting   GPA:3.50/4.00
Core courses: Intermediate Accounting, Management Accounting, Taxation, Auditing, Investment, Risk Management

TECHNICAL AND LANGUAGE SKILLS

Programming: Python, Pytorch, AMPL, MATLAB, IBM-SPSS Modeler, ARENA
Analytics: SQL, Tableau, Microsoft Excel, Microsoft Access, Caseware IDEA
Web/Media: HTML/CSS, Final Cut Pro X
Language: English (Proficient), Mandarin (Native), Korean (Elementary)

PROFESSIONAL EXPERIENCE

Data for Impact, Lehigh University, Bethlehem, PA   June 2020 - Present
Team Lead for Visualizing Changes in Society Project
- Conduct research for the societal shifts; identify 40 key indicators to measure the speed and directions of the societal shifts; collect data from reliable resources; preprocess the data for each key indicator; create dynamic visualizations to reflect the changes with time using Tableau and Flourish
- Create a unique site societalshifts.com to consolidate the visualizations and to provide interactive user experience

Graduate Assistant, Lehigh University, Bethlehem, PA   Aug 2019 - Present
Graduate Assistant for BIS 111 Management Information System
- Assist Prof. Nayar in organizing the learning environment; prepare and maintain class materials and resources focused on the usage of Microsoft Excel and Microsoft Access; grade homework and exams in a timely manner
- Work with students on individual basis to reinforce learning concepts and to better understand course content

KPMG LLP, Shanghai, China   Oct 2016 - July 2018
Full-time Audit Associate
- Exploited Microsoft Excel to perform trend analysis and comparative analysis; utilized Caseware IDEA to process large datasets; exercised VBA to scrape data and to summarize the discrepancy in data
- Assessed Risk of Material Misstatements related to accounts receivables, accounts payables, prepayment and advancement, designed related control testing and substantive testing procedures
- Performed analysis on risks associated controls, test of designs, and test of operating effectiveness for internal controls, focused on inventory management, inventory pricing, investments and borrowings

RESEARCH PROJECTS

Pytorch Project on Nerual Style Transfer, Lehigh University   Feb 2020 - May 2020
- Implemented the neural style transfer algorithm to generate novel artistic images using Pytorch
- Tuned the hyperparameters to improve convergence speed; optimized the total cost function in synthesizing new images

Simulation Project on Improving Rocksoft City Hospital's Operating System, Lehigh University   Feb 2020 - May 2020
- Built a simulation model on the hospital's operating system using ARENA; conducted quantitative and qualitative verification; assigned appropriate resources to achieve system stability
- Identified the problems within the current system and optimize by shortening the average waiting time and increasing the system utilization; provided feedback to improve the performance of the system

Python Project on Predicting Labels, Lehigh University   Nov 2019 - Dec 2019
- Integrated and pre-processed the dataset; transformed and normalized data using Python
- Deployed 6 ML classification models, including Logistic Regression, KNN, SVM, Decision Trees and Neural Networks; improved the testing accuracy to 89.53% using decision tree models with upsampling
- Developed Confusion Matrix, ROC curve and lift chart to monitor model performance

AMPL and MATLAB Project on Navigation System, Lehigh University   Nov 2019 - Dec 2019
- Built a deterministic navigation system model for rideshare services based on shortest path problem using AMPL
- Built a dynamic navigation system model based on greedy heuristic using MATLAB, calculated the minimum distance travelled and generate the optimal pickup sequence; compared the result with the linear models and evaluated results

ACTIVITIES

ISE Student Council, Lehigh University, Bethlehem, PA   Sept 2019 - Present
Member
- Organize department events and panel discussions; help organize partnership events with ISE Advisory Council

Lehigh Global Union, Bethlehem, PA   Aug 2019 - Aug 2020
Vice President for Graduate Student Outreach
- Recruited graduate clubs; maintained relationships with current graduate club member organizations; assisted with marketing and design for large events such as International Bazaar, and International Education Week