

Rongjing Jia

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Education

University of Michigan

M. Eng., Systems Engineering and Design GPA: 3.36

Ann Arbor, MI

Sep. 2017 - Dec. 2018

Nanjing University of Science and Technology

B. Eng., Industrial Engineering GPA: 3.44

Nanjing, China

Sep. 2013 - Jul. 2017

Experience

Data Analyst - Groundspeed Analytics Mar. 2019 - Apr. 2020

Ann Arbor, MI

- **Queuing and Network Flow:** Worked with 4 people on an Operations Research project, elevated the file throughput efficiency, increased customer response ability with Queuing theory, balanced cost and service level with Network Flow.
- **Text Classification and Categorization:** Used Naive Bayes Classifier in Python to recognize relationships between features in the given text range "Loss Description" and predicted the result with mark of "At Fault" or not.
- **Auto Labeling and Clustering:** Applied both K-Means method in Clustering and heuristics method, predicted labels for ambiguous text, grouped by labels, obtained accuracy, precision and recall over 90% and visualized.
- **Named Entity Recognition with NLP tools:** Leveraged the NLP toolkits named SpaCy, labeled relevant data for clients, classified into eight categories and analyzed effects in precision and recall.

Big Data Mining & Analysis Engineer - S.F. Express Supply Chain Jun. 2018 - Sep. 2018

Shenzhen, China

- **Delivery Route Optimization for FILA:** Got a shortest-path solution for FILA. Conducted data cleansing/manipulation, applied heuristics model to end-to-end delivery route scheduling. Saved FILA over \$23, 000 per month for Logistics.
- **Distribution Centers(DCs) Layout Planning for P&G:** Provided P&G with the optimal DCs layout & delivery strategy. Combined SF's delivery price with P&G's historical sales data, deployed Traversal Algorithm/Genetic Algorithm (GA) with Python. Obtained the best Front DCs strategy with cost reduced by 31%.

Data Science Research Assistant - MCity Self-driving Center Mar. 2018 - Jun. 2018

Ann Arbor, MI

- **Data Visualization:** Implemented the HDP-HSMM theory to python for mode recognition, transformed the discrete cycles recorded by Radar/Lidar into continuous trend lines that represented various driving behaviors.
- **Data Mining/Pipeline Construction:** Extracted data from MySQL database and CSV files given by CATARC, a self-driving company, pre-processed and formalized the data. Designed a User Interface with PyQt5 and set up the backstage with C++, simplified the information query and processing procedures.

Business & Operations Analyst - Siemens Jul. 2016 - Sep. 2016

Shanghai, China

- **Business and Sales Analysis:** Summarized the yearly discount and sales revenue records of automated products with Excel, created reports, forecasted the fluctuations based on annual prices/sales volume/revenue records.
- **OEMs Info Management:** Updated purchase amount/frequency of Original Equipment Manufacturers(OEMs). Made the Bill of Materials(BOMs), recognized strengths/weaknesses/threats/growth spaces with SWOT Analysis.

Projects (GitHub: <http://www.github.com/jiarongj>)

Data Science and Machine Learning - STATS607 Sep. 2018 - Nov. 2018

Ann Arbor, MI

- **Statistical Analysis:** Pulled data from a bridge record website, generalized analytical report by features and event dates.
- **Data Mining:** Calculated URLs attack frequency by searching log files, recognized the IP addresses being attacked.
- **Machine Learning:** Analyzed New York City taxi pickup trend and multi-factor correlations on transportation fluctuation rate. Trained a random forest model to predict the extent pickup amounts varied with weather, location and time.

Warehouse Picking System Program Design - DHL Supply Chain Dec. 2018 - Jan. 2019

Columbus, OH

- **Modeling and Algorithm Design:** Designed a Heuristic Model to iteratively decrease the travel length of pickers. The logic helped improve order-response efficiency by rearranging pickers' tasks thus narrowed down per active area.
- **Optimal Strategy Implementation:** Used Python to realize application of the Heuristic Model/Searching Algorithm, the strategy saved overall travel length by 13% compared with the original First Come First Serve(FCFS) logic.

Taxis Response System Design Optimization - ME558 Sep. 2017 - Dec. 2017

Ann Arbor, MI

- **Simulation and Modeling:** Simulated a complex traffic network with objective of demand fulfillment and constraints as vehicle capacities(considered turnover). Generated a model with heuristic passenger pick-up logic with MATLAB.
- **Shortest Path Optimization:** Applied the Shortest Path Algorithm to MATLAB, obtained the shortest travel distance for the passenger response system in limited time. The program saved 51% of travel time compared to the original strategy.

Skills

- **Programming:** Python/SQL/R/SAS/SPSS/MATLAB/Octave/C++/VBA/Lingo
- **Business Intelligence:** Tableau/PowerBI/Excel/ERP/MRP/Llamasoft's Supply Chain Guru
- **User Interface and Design:** HTML/PyQt5 Graphical User Interface/Fusion360/SolidWorks/XLDyn/Visio