

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

Big Data Mining & Analysis Engineer - S.F. EXPRESS Jun. 2018 - Sep. 2018

Shenzhen, China

- **Delivery Route Optimization for FILA:** Created the shortest-path delivery solution for FILA. Conducted data cleansing/manipulation, applied Dynamic Programming/Network Flow model into end-to-end delivery route scheduling and logistics network design. The strategy cut down FILA by over \$23, 000 per month.
- **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 which showed 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 the annual prices/sales volume/revenue fluctuations reports and figures.
- **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.

Inventory Planning Engineer - QUARTEL Jul 2015 - Sep 2015

Shenzhen, China

- **Workflow Improvements:** Rearranged the electronics assembly line, rescheduled the plant layout to enable a smooth work flow, simplified the operational difficulty by researching the procedure bottleneck. Shortened the time to delivery by 14% and increased the productivity by 17%.
- **Lean Manufacturing:** Dredged the blockage and shortened the delivery path inside the warehouse, compiled the workshop manipulation standard file, added in the concept of Lean Six Sigma Management.

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

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

Ann Arbor, MI

- **Statistical Analysis:** Extracted data and summarized as statistical report from a bridge records website, got the clustered results ordered by bridges amount, types and annual fluctuation margins.
- **Data Mining:** Calculated URLs attack frequency by searching log files, recognized the IP addresses being attacked.
- **Machine Learning:** Recorded and analyzed the taxi pickup trend in New York City, recognized effects of different factors on transportation rates. Trained a negative binomial and a random forest model to predict the number of taxi trip pickups based on ZIP Code, weekday, weather and time period.

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

Ann Arbor, MI

- **Modeling/Simulation:** Demonstrated a demand fulfillment environment with complex traffic networks simulation. Generated a passenger picking-up system with MATLAB, scattered the cars and passengers to different places.
- **Dynamic Programming/Optimization:** Applied the Shortest Path Algorithm into MATLAB, obtained the shortest travel distance for the overall passenger response system within a specified time limit. The program saved over 50% of processing time compared with original picking-up strategy.

Skills

- **Statistics & Programming Tools:**
Python/SQL/R/SAS/SAP/Tableau/SPSS/Excel/C++/VBA/MATLAB/Octave/Lingo
- **Engineering & Design Software:**
PyQt Graphical User Interface(GUI)/Robot Operating System (ROS)/Fusion 360/SolidWorks
ERP/MRP/XLDyn/Llamasoft's Supply Chain Guru/Microsoft Visio