

Resume

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EDUCATION

- **Michigan-Shanghai Jiao Tong University Joint Institute** Shanghai, China
Bachelor of Engineering, Major in Electronic and Computer Engineering Sep. 2017 – Present
Related Coursework: Artificial Intelligence, Linear Algebra, Data Structures and Algorithms, Operating Systems

TECHNICAL SKILLS

- **Languages:** C, C++, Python, Java, R, Matlab, HTML, CSS, x86 assembly, Verilog
- **Data Analysis:** : SQL, Pivot table, PyTorch, Tensorflow
- **Others:** : Linux, Unix, Latex

EXPERIENCE

- **Air Liquide S.A** Assistant Data Analyst - RD department Shanghai, China
Data analysis, Sorting algorithm, Regression modeling Jan. 2020 – Jun. 2020
 - Participated in the design of taste experiment using sorting algorithms to analyze the consumers' behavior and preference for product branding optimization
 - Collected and managed project data by each week in pivot table about field experiments and market researches
 - Applied statistic test and models in R for project analysis, presented the results in group meetings, and promoted business decision making

ACADEMIC RESEARCH AND PROJECTS

- **Operating Systems Projects** Team Leader Shanghai, China
Shell, Database Sep 2020 – Present
 - Implemented a shell that supports commands with arguments, file I/O redirection, piped process, signal detection, quotes management, error handling and background job
 - Implemented and designed a MongoDB-style multi-threading database that supports query instructions, keymap
 - Implemented a kernel-level scheduler supporting switch among lottery scheduling, EDF scheduling and default algorithms in MINIX3, and wrote test files
- **Graph Embedding Undergraduate Research** Research Assistant in Prof. Gao's lab Shanghai, China
Network research, Machine learning algorithm Jan 2020 – Present
 - Implemented algorithms of influence maximization in social network using PyTorch like deepinf through self-studies
 - Researched different graph neural network algorithms and applied to social network embedding problem to enhance the embedding efficiency
 - Summarized the latest achievements in link prediction and graph embedding monthly and presented to lab members
- **Pacman Game Agents Implementation** Individual Study Shanghai, China
Machine learning algorithms Jun 2020 – Jul 2020
 - Conducted a Pacman search agent by using multiple algorithms, included the BFS, DFS and A* graph search algorithms, Min-max search, Alpha-beta Pruning and Expectimax algorithms
 - Applied hidden markov model to track hidden ghosts using the forward algorithm and approximate inference via particle filters
- **Amazon Marketing Strategy Analysis** Team Leader Shanghai, China
Data mining, Modeling, Data visualization Mar 2020 – April 2020
 - Applied natural language sentiment analysis, and Hawkes process to construct product scoring model and marketing strategy, based on customers' review and score of Amazon's products in the past 20 years
 - Participated in the data cleaning, data visualization, flowchart design and paper composing
 - Won the Meritorious Winner (ranked top 6.70%) in the 2020 MCM Mathematical Modeling Competition
- **Tesla Stock Price Prediction** Team Leader Shanghai, China
Data mining, Regression modeling, Data visualization Sep 2019 – Dec 2019
 - Crawled Tesla stock price data in the last eight years from Yahoo, and finished the data cleaning
 - Implemented time series model ARIMA-GARCH, machine learning model HMM and neural network LSTM using R and trained the data to make prediction about stock price
 - Visualized the data using R, presented the analysis as poster presentation, and achieved the highest score in class