Jiatao Lai

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Education

University of Texas at Dallas M.S. in Computer Science *Aug. 2021 - Expected Dec. 2023*

Chengdu University of Information Technology BEcon in Statistics *Sep. 2010 - Jun. 2014*

Technical Skills

Programming: Python, Java, Shell, HTML/CSS, SQL, Flask, Django, RESTful API

Machine Learning & Data: Scikit-learn, PyTorch, TensorFlow, NLP, MySQL, PostgreSQL, Oracle

Technologies/Frameworks: Linux, Docker, AWS, Spark, Kafka, Distributed Computing

Experience

Chengdu Fanglian Cloud Code Technology **Nov. 2019 - May. 2021**

Software Engineer *Chengdu, China*

Real Estate Appraisal System (Modeling-API) | *Kafka, Django*

- Launched a Property Appraisal System for real-time used-house valuations for financial institutions.
- Developed a data collection system using Python and Kafka to aggregate 3M+ pricing data from various sources, kept the database in sync with the housing market.
- Designed a real-time price appraisal model with deviation restrained under 5%; constructed Django APIs to offer appraisal service, delivering projected prices

Real Estate Transaction Big Data Platform | *Oracle, Vue, Echarts*

- Built a cloud-based real estate transaction data platform with Oracle database; processing multi-source data from 20+ counties, with daily updates and statistical functionality.
- Crafted front-end visualization with Vue and Echarts to provide market reference indexes.

Full Truck Alliance – leading truck-hailing company **May. 2018 - Sep. 2019**

Software and Algorithm Engineer *Chengdu, China*

Optimization for Navigation System of Freight Fleets

- Upgraded the company's fleet navigation system to reduce fuel, toll, and time expenditure.
- Devised about 3 million critical navigation routes based on DFS path search and path similarity analytics; reduced the total fleet cost by 5%.
- Further optimized navigation system by designing and integrating path correction algorithms.

Accuracy Improvement for Historical Orders | *Hive/HBase*

- Investigated 1.6 billion of GPS trace data with Hive/HBase integration, combined with order location details to rectify the recorded loading/unloading times and locations, boosted the accuracy to over 99%.

Text Classification of Cargo Description | *fastText*

- Implemented text feature extraction of tens of millions of cargo description texts shared by clients, trained fastText classification models, classified freight tasks into over 30 standard categories, attaining over 96% accuracy.

Chengdu Think Tank 2861 Info Tech – governmental IT advisory **Jul. 2017 - Apr. 2018**

Software and Algorithm Engineer *Chengdu, China*

- To collect 60 million posts and comments from popular social media platform, developed a **distributed multi-threaded** crawler in Python, deployed on Alibaba-cloud and stored texts in PostgreSQL.
- Constructed a dynamic **opinion analysis model** to evaluate County Government performance and achieved 90% positive rate in user feedback.
- Established an official **social network** with 144,504 hierarchical connections, devised recommendation function by inferring potential connections.