

TIANQI XIE

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EDUCATION

University of Southern California, CA, USA
Msc Applied Data Science

Jan 2022 - Dec 2023(exp)
4.0/4.0

Xiamen University, Xiamen, China
Bsc Computer Science

Aug 2016 – Jun 2020
3.4/4.0

- Awards: 1st-grade Scholarship (top 5%, 2018), Arts & Sports Scholarship (top 5%, 2018), Merit Student (top 10%, 2018)

SKILLS

Programming: Python, SQL, Java, HTML5, CSS, Javascript, C/C++, Scala, Shell, Matlab

Technologies/Tools: Linux, MySQL, Flask, Django, React, Git, Redis, NodeJs, Hive, Spark, Flink, Kafka, Tensorflow

Proficient Fields: Software Engineering, Database, Big data, ETL, Machine learning, Deep learning

WORK EXPERIENCE

Zuoyebang Education Technology (Beijing) Co., Ltd
Big Data Engineer

Beijing, China
Sep 2020 – Aug 2021

- Monitor **90%** of the data output from the data warehouse by constructing a data quality platform using **Java SSM** framework and **Quartz** scheduling system
- Design an algorithm to calculate the length of students' listening time based on live room heartbeat data, and provide the real-time processed data to teachers and teaching assistants in class
- Build a data warehouse based on **Hive** and **HDFS** to manage students' information (class duration, test scores, gift distribution, etc), satisfied with more than **95%** of data search work for data analysts
- Adapted **Flink** as stream data processing engine and **Redis** as state cache database to process the data provided by **Kafka** and then wrote the real-time data into **Elasticsearch/Doris** to support the online data dashboard

Yongyou Network Technology
Software Engineer Intern

Jiangxi, China
Jun 2019 – Jul 2019

- Cooperated with front-end engineers to write and modify **Javascript** code to develop homepage for the served company
- Used **Impala** to process the data of monthly sales volume (table connection, table retrieval, etc) through **SQL** statements and invoked **Echarts** interfaces to visualize the sales data in support of decision making

PUBLICATIONS

UbiComp 2019

Sep 2019

- 1st co-author: *Identifying Urban Villages from City-Wide Satellite Imagery Leveraging **Mask R-CNN***
- Attend the UbiComp 2019 in London and kept abreast of latest research directions of ubiquitous computing

IEEE Systems Journal

Aug 2020

- iTV: Inferring Traffic Violation-Prone Locations With Vehicle Trajectories and Road Environment Data*

PROFESSIONAL EXPERIENCE

LA Crime Awareness and Weather, USC

Feb 2022 – May 2022

- Led a team to design and build an app. This app presents various information about the past crimes in LA, allowing people to find nearby crime cases based on location and view crime analysis in the LA area.
- Used **Spark** to process the raw data stored in the **Firebase** and wrote it into **MySQL** database in **AWS EC2**
- Wrote python scripts and **SQL** query using **Flask** backend framework to return crime and weather data taken from **MySQL** database to the front-end pages.
- Constructed the overall front-end system based on **Bootstrap** framework, used **Ajax** to request backend data and visualize the crime situation and analysis charts on the web pages through **Echarts** and **Google Map API**.

Research: Urban Smart Emergency Response Based on Big Data

Oct 2018 – May 2019

- Participate in research and hope to predict road risks post-disaster leveraging heterogeneous urban data
- Visualize disaster events in Xiamen by constructing a webpage using **Django** and **Bmap API**
- Extract** Xiamen's historical weather data(including temperature, humidity, etc) from **web crawler** and marked the degree of plant coverage in various locations in Xiamen by processing satellite cloud images
- Published: *PANDA: predicting road risks after natural disasters leveraging heterogeneous urban data*