

Bokai XU

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Education

Beijing Normal University - Hong Kong Baptist University United International College

09.2017-07.2021

B.S. in Data Science

✓ GPA: 3.88/4.0, Major GPA: 3.97/4.0

University of Michigan - Ann Arbor

09.2021-05.2023 (Anticipated)

M.S. in Data Science

✓ GPA: 4.0/4.0

Work Experience

Qingdao Fangtian Technology Co., Ltd

Data Analyst Intern

06.2020-07.2020

✓ Assisted in the design of database to connect the power grid database of Shandong Province

✓ Wrote database SQL statements, calculated relevant indicators and indexes with combining data cleaning

Projects

Forecasting Second-hand Car Price based on Machine Learning (*python*)

06.2020

✓ Conducted data cleaning and exploratory data analysis (EDA) on the raw data by using the dataset from Kaggle

✓ Employed several machine learning models including linear models, tree models and ensemble learning models to compare their performance on the same dataset

Study of Text Clustering Analysis based on Community Discovery (*python*)

06.2020

✓ Preprocessed related text data sets such as removing duplicate fields and extracting feature values

✓ Used Louvain algorithm to find out those words and phrases appearing frequently

Covid-19 Dashboard

06.2020

✓ Designed a global dashboard for COVID-19 outbreak using many different visualization technics

✓ Used SEIRD model and cellular automata to simulate the spread of the virus under herd immunity condition

Text Search Engine based on Hadoop

09.2019-12.2019

✓ Grasped some novels from a novel website, introduced MapReduce framework to get them indexed and sorted

✓ Built a simple search engine with combining Python Django framework, HTML and CSS

Query Traffic Violation Record Database System (*SQL*)

09.2019-01.2020

✓ Used Python to simulate data, built database including various road traffic illegal activities. Used SQL for basic traffic violations search

✓ Designed an interface by using HTML and PHP, simulated the daily vehicle owners' query of traffic illegal activities, and published the results

Automatic Driving and Multi-Robot Collaboration Mapping (*C++ & MATLAB*)

09.2019-12.2020

✓ Utilize Visual Simultaneous Localization and Mapping (VSLAM) and Robot Operating System (ROS) as well as visual camera to conduct our research

✓ Employ real world data as well as simulated data to investigate how to reduce data transmission between robots

Publications

1 Bokai Xu, Shihan Bu, Xinyue Li, Yanzhi Lin, and Shengxin Zhu. 2021. XDeepFIG: An eXtreme Deep Model with Feature Interactions and Generation for CTR Prediction. In 2021 *3rd International Conference on Big-data Service and Intelligent Computation (BDSIC 2021)*. Association for Computing Machinery, New York, NY, USA, 42–51. DOI: <https://doi.org/10.1145/3502300.3502306>

2. Turenne, N., Xu, B., Li, X., Xu, X., Liu, H., & Zhu, X. (2020, December). Exploration of a Balanced Reference Corpus with a Wide Variety of Text Mining Tools. In 2020 *3rd International Conference on Algorithms, Computing and Artificial Intelligence* (pp. 1-9).

3. B. Xu, X. Li and Y. Shen, "Fish detection based on grey-markov model," 2020 *2nd International Conference on Applied Machine Learning (ICAML)*, 2020, pp. 322-328, doi: 10.1109/ICAML51583.2020.00072.

Honors and Prizes:

First Class Scholarship for Excellent Academic Performance

2018-2021

Honorable Mentions of MCM/ICM

2020

National Second Prize of CUMCM

2020