

XUAN WANG (Ayla)

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GitHub <https://github.com/xxuan02/traffic>

EDUCATION

The University of Texas at Austin | GPA : 3.85/4.00

Aug 2019 - May 2021

Master of Science, Information Studies

Courses taken : Data Mining, AI in Health, Database Management, Data Wrangling, ML in Python (self-learning)

Dalian University of Technology | GPA : 3.30/4.00

Sep 2015 - Jun 2019

Bachelor of Management, Electronic Commerce

Courses taken : .NET Programming, Java and Object-oriented Programming, Data Structure, Probability and Statistics
Exchange Student in Information Management at **NTUST** (Sep 2016 - Jan 2017)

PROJECTS

Readmission Prediction for Hospital

Feb 2020 - Apr 2020

Group Project

- Balanced the data with under-sampling and evaluated the probability distribution of words with Zipf's law and prepared cleaned labels.
- Represented text features with Bag-of-Words approach, built tokenizers to split text into individual words and then created vectorizers on the clinical notes as the input features of the predict models.
- Forecasted the boolean results with regards to the input features via Random forest, CNN with LSTM model and XGBoost.

Explore the Deep learning Models with Extrasensory Dataset

Feb 2020 - May 2020

Group Project

- Used Sequential Forward Selection and Auto-encoder to select features based on the in-the-wild datasets.
- Developed traditional supervised learning methods like random forest and Neural Networks like MLPs, RNNs and LSTM models and applied dropout and batch normalization to avoid overfitting.
- Compared the balanced accuracy from those methods and gave the prediction based on the best-performance model.

Design of interactive web pages

Oct 2019 - Dec 2019

Group Project

- Drafted the layout of web pages and created table structures with respect to the entity relationships.
- Generated HTML outputs dynamically with PHP and CSS and paged out the results in tabular form.
- Added MySQL connections via PHP to query among massive tables MariaDB.

An Intelligent Traffic Light System Based on Digital Infochemicals

Mar 2010 - Jun 2019

Individual Project

- Constructed an intelligent traffic simulation model from the perspective of complex adaptive.
- Used Python and SUMO platform to build the simulation intersection and conducted model verification.
- Interacted with simulation environment through Traci interface in order to control signal light with python.

INTERNSHIP EXPERIENCE

Dayi Technology Co., LTD (China)

Jul 2018 - Aug 2018

Database Operation and Maintenance Assistant in Data Operation Department

- Obtained knowledge of databases and was responsible for database maintenance.
- Wrote MySQL statements in both Windows and Linux and completed database connection using JAVA.
- Updated the database by utilizing the principle of master-slave synchronization.

TECHNIQUES & SKILLS

Programming Languages : Python (libraries : numpy, scipy, pandas, matplotlib; packages : sklearn, keras, tensorflow) |

Databases : SQL | **Visualization :** MATLAB, Tableau | **Statistics :** SPSS | **Frameworks :** PHP

ACTIVITIES

Participant of [AI Health Data Challenge 2020](#)