

CATCHY ZHENG

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EDUCATION

University of Illinois at Urbana-Champaign
Master in Computer Science

Aug 2018 - Dec 2019(Exp.)

Sun-Yat-Sen University
B.Eng. in Software Engineering

Aug 2014 - Jun 2018
(GPA: **3.8/4.0**)

PROFESSIONAL EXPERIENCE

Huawei, Noah's Ark Lab, Engineer Intern

Jul 2017 - Sep 2017

- Trained three ResNet models of human/vehicle, traffic light and traffic sign by partitioning the image extracted from video
- Applied attention mechanism on area with higher possibility and filtered repudiate frames by ratio of intersection areas
- Built the ground truth datasets and improved the correct rate from 89% to 96% via human-in-the-loop process

SYSU, TA of Introduction to Artificial Intelligence

Sep 2017- Jan 2018

- Provided instruction on the basic machine learning algorithm in **Python** such as kmeans, Random Forest, Neuro Network, Decision Tree and some product related algorithms such as collaborative filtering and clustering

VIP.com, Data Analyst Intern

June - Aug 2018

- Compared the life cycles of commodity, and calculated the moving average of price in the previous period to simulate the baseline price from consumers' point of view
- Developed robust baseline sales estimation using linear regression and Random Forest to analyze sales in the absence of price promotion

SELECTED PROJECTS

Rating Based Multi-level Tag Recommendation

Apr - Jun 2018

- Recommended different tags to different ratings of a movie based on the emotional value provided by SentiWordNet as well as user preference and movie similarity
- Filtered meaningless tag with Hadoop based on part of speech, classified the rest into proper, genre, sentiment, and stored in MySQL
- Built the hierarchical structure of user model and movie model with **Python**

Weibo Social Network Analysis

Apr - Jun 2017

- Used TF-IDF and TextRank to find the most popular 20 keywords on Weibo Dataset and applied PageRank as well as degree rank to find the most influential 10 Big Data related users
- Applied Fast Unfolding algorithm to detect community in user social graph and analyzed the influence of keyword cluster

Classification and Regression Data Contest

Nov 2016 - Jan 2017

- Applied Relief-F, cross entropy and mutual information to do feature selection and adjust attributes' weight
- Applied Naive Bayes, Logistic Regression, Random Forest, Decision Tree, kNN, Ensemble Learning etc., to do classification or regression with **Python** and the accuracy on four datasets ranked top 5 in class

Nationwide Water Capacity Fuzzy Prediction Model

Jan - Feb 2016

- Assessed the water resource capacity of each province based on dynamic fuzzy matrix and constructed a grading system with agricultural, industrial, residential factors for each province nationwide
- Predicted water resource per capita using regression forecasting model built by **Matlab** according to features of climate change and population trends

Construction of a Company Bill Management System

Nov 2016 - Dec 2016

- Used MySQL to establish the database, designed the web page layout, and realized the function of registering, logging in, adding, modifying, and deleting bill
- Designed two modes of user and administrator allowing them to do queries and calculations in individual and whole field

AWARDS

The Third Prize of the 14th Guangdong Collegiate Programming Contest, China

2017

Meritorious Winners of Interdisciplinary Contest in Modeling for two years, USA

2016-2017

National Scholarship for consecutive two years (Top 5%), China

2016-2017

SKILLS

Programming Languages
Software

Python, Java, Matlab, R, C++, Html, CSS
MySQL, Hadoop, ECharts, LaTeX