## Yiwen Yang

## **EDUCATION**

#### SOUTHERN METHODIST UNIVERSITY

MS IN COMPUTER SCIENCE

Aug. 2016-May 2018 | Dallas, TX

# CHINA UNIVERSITY OF GEOSCIENCES BS IN GEOGRAPHIC INFORMATION SYSTEM

Sept. 2012-July 2016 | Beijing, China

## LINKS

Github:// Aristotleyyw LinkedIn:// Yiwen Yang

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## SKILLS

#### **PROGRAMMING**

Python • C++ • Java • SQL

• JavaScript • HTML • XML • JSON

#### **DATABASES**

PostgreSQL • MySQL • MongoDB

• Redis • Oracle Database

#### **OTHER**

Linux • Git • Numpy • Pandas

- Tensorflow Keras VMware
- Spring REST

## COURSEWORK

#### **GRADUATE**

Algorithms

Machine Learning in Python Information Retrieval

information Retriev

Data Mining

Database Management

Cloud Computing

Advanced Computer Network Security

Cryptography

Operating Systems

Computer Architecture

#### **UNDERGRADUATE**

Web GIS

Computer Graphic Data Strucuture

Software engineering

### **EXPERIENCE**

#### PEPPERSTONE FINANCIAL PTY LTD. | DATA ANALYST INTERN

May 2017 - July 2017 | Dallas, TX

- Implemented a web crawler by PySpider framework to fetch and parse textual data from DailyForex, increased 10 percent of performance in this phase by applying Redis to cache the intermediate data.
- Utilized Pandas library to clean and analyze data. Trained processed data to extracting key points and built a model to fulfil new question that solved in previous scenario.
- Accomplished a chat bot to recognize and respond to end user by deployed luis.ai API, which is a language understanding intelligent service by Microsoft.

#### EMERICAN LTD. | ANDROID DEVELOPMENT INTERN

May 2016 - Aug 2016 | Beijing, China

- Designed and modified User Interface in XML and Java
- Conducted unit test and coverage test, tracked issues and classified them measured by different priority level;
- Composed API documentation of backend services, demonstrated internal logic of each entry entity;
- Participated in code reviews, scrum meetings and discussions regarding evolution of product architecture and design.

## ACADEMIC PROJECTS

#### WEB CRAWLER AND QUERY ENGINE | PYTHON

- Fetched a list of URLs and parsed corresponding web content, stemming words and implemented a mechanism to conduct duplicate checking according to its Jaccard coefficient.
- Generated a HashMap for the documents and calculated their tf-idf, compute the cosine similarity for each query against every document.
- Ranked documents by similarity based on the query, implemented a cache system to store frequent query for high performance.

#### TEXT CLASSIFICATION AND GENERATION | PYTHON

- Preprocessed textual data, applied 3 Keras RNNmodels to train data: LSTM, GRU, SimpleRNN. Adjusted hyper-parameters of the networks to improve generalization performance.
- Employed the methods of cross validation and evaluation metrics. Visualized best results of RNNs.

#### COLLEGE STUDENTS' FINANCIAL ACCOUNTING SYSTEM ANDROID APPLICATION | JAVA

- Designed and implemented the User Interface and used MVC pattern to build the app.
- Used the SQLite to keep the details of users' income and expenditures.
- Wrote unit tests for mobile code and debugged critical application issues such as crashes, memory leaks, and concurrency problems.

## **AWARDS**

2015 2<sup>nd</sup> International Interdisciplinary Contest in Modeling (ICM) 2015 3<sup>rd</sup> International International Underwater Robot Competition