RUI CHEN

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M.S. student major in **Computer Science** at **Georgetown University**, looking for **Software Engineering Internship** .

EDUCATION

Georgetown University, M.S. Computer Science **Aug 2021 – now**

- GPA: 3.67/4.0
- Anticipated Graduation Date: **May 2023**

Wuhan University of Technology, B.E. Computer Science **Sept 2015 – Jun 2019**

- GPA: 3.74/4.0
- 3rd-level Scholarship in Nov 2018, 2nd-level Scholarship in Nov 2017

EXPERIENCE

Employee at CMB YunChuang Technology **Oct 2020 – May 2021**

Data Development Engineer

- Developed and maintained database (MySQL mainly)
- Exporting report forms from databases
- Developed back-end program of a web project called Cloud Map using Django (at Demo phrase)

Improvement of Object Detection Algorithm YOLOv3 **Feb 2019 – Jun 2019**

Lead author of Thesis for B.E.

- Conducted the study of feature extraction backbone network `DarkNet-53` and feature interaction network of YOLOv3, and the implementation based on PyTorch
- Proposed improvement ideas concerning the `prior frame` of the model YOLO layer and the network structure of `feature pyramid`. Also proposed improment ideas targeting at training dataset.
- Implemented this improved algorithm with **58.59% mAP** (better than the original one with 35.6% mAP) on BDD100K dataset at the real-time level for detection.

Internet news classification and recommendation system **Mar 2018 – Aug 2018**

Team Leader

- Constructed a character-level CNN news classification model
- Crawled five billion new data and vectorized the text data
- Trained the model and achieving a classification accuracy of 90%
- Designed and developed database, web back-end, and front-end interaction via comprehensive implementation of spring boot, redis and mongoDB
- Fulfilled the system based on big data platform with group and became one of the five National 1st Prize winning groups in the Software Service Outsourcing

Book recommendation system based on book review content **Mar 2018 – Feb 2019**

Team Leader

- Pre-processed data regarding text segmentation, de-stopping words, etc.
- Trained tag library word embedding model with word2vec (Chinese Wikipedia corpus)
- Extracted book review keywords using tf-idf and contributed to the design of tag sets and the algorithm calculating correlation between tag sets
- Developed the system “Shu Yun”, applied for an invention patent, and approved as a National level project
- Submitted to the 1st “Big Data Innovation” competition and won the 2nd Class Prize
- Applied for a National Invention Patent (Application No.# 201910109797.1)

A research on a consumer review utility model **Mar 2017 – Feb 2018**

Team Leader

- Assumed the Group Leader and coordinated the group’s work throughout the project
- Determined four review evaluation dimensions of timeliness, length, sentiment analysis, and product attributes

- Calculated emotional intensity based on sentiment vocabulary
- Obtained product attributes via training word embedding model with word2vec and extracting top 10 keywords with tf-idf
- Quantified features according to number of feature words and used as input into fuzzy hierarchical comprehensive evaluation model
- Trained model with supervised learning mode and approved as a University-level project