Nan Deng

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TECHNICAL SKILLS

Experienced with **Python, Java, JavaScript, ReactJS, PHP,** AngularJS, TypeScript, SQL;
Familiar with web framework Django, and big data framework **Hadoop** and **Flux**.

EDUCATION

University of Michigan

M.S. in Information Analysis and Retrieval, GPA 3.75/4.0

EXPERIENCE

Institute for Research on Innovation & Science, Ann Arbor — *Web Developer*

August 2017 - Present

- Develop an auto-triggered file parsing tool that inputs data uploaded by users into different database, and encrypt the file after data parsing using **PHP, SQL,** and **Python**
- Cooperate with colleagues to build new web portal through modules for submitting researcher application, and generating member reports using **ReactJS, Bootstrap,** and **SQL**

Bright Oceans Corporation, Beijing — *Software Development Engineer Intern*

June 2017 - August 2017

- Developed an instant filter system to filter and categorize data collected from city main streets, and allow SDEs across teams to fetch them correspondingly using **PHP, Hadoop,** and **SQL**
- Designed and developed visualization for govenmental users to track traffic status in peak hour, implemented features of daily report review, and excessive flow notification using **JQuery**, and **D3.js**

Welfare Fund For the Handicapped, Tianjin — *Software Development Engineer*

July 2015 - May 2016

- Built a data input application to collect data of both charitable donors and receivers for donations match according to donor's distinct target requirements using **AngularJS,** and **mySQL**

PROJECTS

Comment Rank for Community Question Answering — *Natural Language Processing*

- Extracted feature vectors on inter-pair similarity, intra-pair similarity, and heuristic perspective between both question-comment and comment-comment pairs using **Python** package nltk, and word2vec
- Applied **Support Vector Machine (SVM)** and **TextRank** on a Community Question Answering forum using **Python** machine learning package sklearn, re-ranked comments according to their relevancy associated question thread; achieved an accuracy around 68.75% by SVM and a 45.9% MAP by TextRank

Restaurant Evaluation through Yelp & Instagram — *Data Manipulation and Analysis*

- Fetched and processed user review data from Yelp and Instagram API using **Python**
- Analyzed what elements mainly influence the star rating on Yelp's business through **R**, conducting sensitive analysis towards customer reviews to identify factors that could help improve restaurant performance

Linear Programming Interactive Visualization— *Data Visualization*

- Visualized two dimension Linear Programming via **D3.js**, designed interactive toolkit for users to better understand by changing distinct parameters