



NAN DENG

SOFTWARE DEVELOPER

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PROFESSIONAL SKILLS

- Analytical Thinking
- Database Design
- Data Visualization
- Natural Language Processing
- AngularJS
- Django Framework
- Ajax
- Competitive Analysis
- Usability Testing
- Wireframing
- Interaction Flow
- Contextual Inquiry
- Affinity Diagram

PROGRAMMING LANGUAGES

- Python
- PHP
- SQL
- Java
- HTML5
- CSS3
- Git
- Javascript/D3
- JQuery
- Hadoop

TOOLS

- SPSS
- STATA
- R
- Photoshop
- Sketch3
- Principle
- Illustrator

LANGUAGE

- English (Proficient)
- Chinese (Native)
- French (Basic)

WORKING EXPERIENCE

Institute for Research on Innovation & Science

Student Programmer

09/2017 – Present

Ann Arbor, MI

- Deployed a file encryption/decryption system through Cryptodome to protect the client-side information security; enable system to keep original file containing format error for later check
- Designed and realized a Web Autonomous Management System for clients to designate/recall new administrators and change availability of shared report's link
- Updated internal administration system to allow electronic management of membership

Bright Oceans Corporation

Software Developer

06/2017 – 08/2017

Beijing, China

- Structured standardized model which conceptualizes objective circumstances into measurable items based on available resources categorized from current management platform
- Import raw data into enterprise database; applied ESB (Enterprise Service Bus) to improve data's accuracy, integration, and expansion capability, get them well-prepared for visualization
- Developed high-fidelity prototype and optimized UI elements of product on a localized basis to attune users' behavior; visualized the popularity distribution part

Tianjin Welfare Fund For the Handicapped

Software Developer

07/2015 – 05/2016

Tianjin, China

- Established dualistic online form for inputting the basic information of donors and recipients
- Collected stakeholders' targeted aspirations; categorized them through key requirements and imported as database
- Design and realized a donation distribution system by applying SQL to automatically matching donors and recipients, which increases daily working efficiency over 50%
- Maintained and developed foundation's internet and intranet web pages through information reporting system

PROJECTS

Comment Rank for Community Question Answering Forum

Natural Language Processing

09/2017 – 12/2017

Ann Arbor, MI

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

Linear Programming Interactive Visualization

Data Visualization

09/2017 – 12/2017

Ann Arbor, MI

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

Restaurant Evaluation through Yelp & Instagram

Data Manipulation and Analysis

01/2017 – 04/2017

Ann Arbor, MI

- Fetched data from both Yelp and Instagram to analyze whether they have a positive correlation for certain restaurant. It turns out they are not interchangeable in functionality
- Analyzed what elements mainly influence the star rating on Yelp's business through R, conducting sensitive analysis towards customer reviews to evaluate the attitude they express

EDUCATION

Master of Science in Information - HCI/IAR

University of Michigan

09/2016 – 04/2018

Ann Arbor, MI

Master of Public Administration

University of Washington

09/2013 – 06/2015

Seattle, WA