XUE **WU**

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SKILLS

Languages: **Java • Python • Scala • C • C++ • R • JavaScript • SQL • php • html;**
Web: **Spring Boot • Flask and Django • Node.js • Docker • RabbitMQ • WebSocket, etc;**
Cloud computing**: Hadoop MapReduce • Spark • TensorFlow • Kafka • Zookeeper • Eureka • Mesos • Redis;**
Database: **Hive • Cassandra • MongoDB • HBase • MySQL • PostgreSQL • Teradata, etc.;**

EDUCATION

University of California, Davis, Davis, CA
M.Sc. *Computer Science* & M.Sc. *Statics, (Double Major)* GPA: 3.5 Graduation: Mar. 2017

Northeastern University, Shenyang China
B.Sc. Applied Physics (Scholarship from Chinese Academy of Science, top 1%)

PUBLICATION

Integrating Predictive Analytics into a Spatiotemporal Epidemic Simulation
Visual Analytics Science and Technology (VAST), 2015 IEEE Conference on Oct, 2015, pp. 8

WORK EXPERIENCE

Software Engineer – Intern | *Lattice Co., Ltd.* *San Jose, CA* *Jun. 2014 ~ Sep. 2014*

- Implemented an online translation web service system with Python Django Framework;
- Developed a translation system with recursive neural network integrated with a data processing pipeline which efficiently parsing data and translate C code into hardware description language for hardware programming;
- Collaborated with NEC-Japan, analyzing test data generated from model system testing to improve the model.

PROJECTS

Real-time running location simulation and monitoring system *Jun 2017 ~ July. 2017*

- Designed and developed a real-time running location simulation and monitoring system using Java Spring Boot, Spring Data, Spring Cloud, RabbitMQ, MongoDB, MySQL and Docker;
- Based on Microservices architecture, incorporated Netflix Eureka as service registration, RabbitMQ as message queue, implemented back-end services such as location update, distribution and persistence services;
- Developed single page front-end to integrate with backend using HTML, CSS, JavaScript, REST and WebSocket;
- Persisted data to MongoDB and MySQL using Spring Data as Data Access Layer;
- Utilized Docker to containerize infrastructure and Maven to manage dependencies.

Search Ads Web Service *May. 2017 ~ Jun. 2017*

- Designed and developed web crawler which crawled half million product data from Amazon;
- Designed and developed Search Ads Web Service which supports, Query understanding, Ads selection from inverted index, Ads ranking, Ads filter, Ads pricing, Ads allocation;
- Built Ads forward index with MySQL Database which store Ads Id, bid, title, url, campaign data, Ads inverted index with Memcached; Built Ads Index Server which use gRPC to send ads candidates to Ads Web Server;
- Reverse engineered search log with weighted random sampling algorithm;
- Designed feature engineering pipeline, generated features for query understanding, click prediction with Spark;
- Predicted query intent, click probability with pageRank, impression count, click count, category as features.

Real-time Stocks Big Data pipeline *Mar. 2017 ~ Apr. 2017*

- Implemented a real-time big data processing pipeline with Kafka, Cassandra, Spark, Zookeeper and Mesos.
- Get real-time stock data from google finance API, transmitted data with Kafka, stored into Cassandra Clusters;
- Used Spark streaming processed the data from Kafka Broker, computed the real time average price of stocks;
- Pushed the data to Redis hub, displayed the real-time dynamic data with Node.js, Bootstrap, jQuery and D3.js;
- Used Apache Zookeeper to coordinate the distributed system, and Apache Mesos on work scheduling;
- Encapsulated the pipeline infrastructure with Docker.

News Recommendation System with Web Mining *Feb. 2017 ~ Mar. 2017*

- Developed a single-page web application for users to browse news with React.js, Node.js, RPC;
- Implemented a data pipeline to monitor, scrape news and dedupe the news with RabbitMQ, tf-idf, MongoDB;
- Classified news topics with over 60% accuracy by building an offline Conventional Neural Network deep learning model for news topic modeling using TensorFlow;
- Collected users' click logs via a click event log processor, updated the system for individual user;

Collaborative Online Judge System *Dec. 2016 ~ Jan. 2017*

- Designed and Implemented a web-based collaborative code editor allowing multiple users editing simultaneously, adding and browsing the new coding problems with Node.js. Angular2 and Socket.io;
- Deployed a user-code executor service having built and execute user's code features by using Docker and Flask;
- Decoupled services by integrated the RESTful API with Nginx as load balancer to improve system throughput around 20,000 edit requests at the perk time.

(** More Projects please check my webpage)*