Zailin Yuan

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EDUCATION

M.S., Computer Science Jan.2020-Dec.2020
University of Texas at Dallas (UTD), TX GPA: 3.52/4.00
M.S., Chemical Engineering 2016-2018
University of Southern California (USC), Los Angeles, CA GPA: 3.28/4.00

SKILLS

- Coding with: Java, JavaScript, jQuery, HTML, CSS, C/C++, Python3, Scala, R
- Databases & Operating System: MySQL, MongoDB, Linux, Hive
- Frameworks: NodeJS (Sails.JS), ReactJS, Spark

INTERNSHIP

Alchemy, a FinTech Infrastructure Company Feb.2020-Now
Web developing

- Multitask on developing several websites with each website a financial product of our company. Maintaining and developing these websites according to project manager's tickets assigned though **Jira**. Working with third party **REST** web services sometimes. Managing projects using **Git** and **BitBucket**.
- Develop front end web pages including architecture, deploy, style, functions and user interactions to realize the business flow as demand using **HTML**, **CSS**, **JavaScript**, **jQuery**, **Nunjucks** templates and plugins/packages.
- Program on back end applications and controllers to processing user requests. Business flow are realized by background **MongoDB** CRUD and logics coding by **JavaScript**. Pass data to render web page template at backend as responses to frontend. Our websites are built on **Sails.js** framework on **Node.JS** platform.

PROJECTS & EXPERIENCE

Stock Trading Website Nov.2019
Group work development of a website for search/buy/sell stocks using **ReactJS** / **NodeJS** (KOA)

- Allow user to register, login, log out, add bank accounts and transfer money on the website. Allow User to search and go through more than 100 stocks with pagination. Stocks can be buy / sell one-time or by schedule. Allow users to see stock charts and check stock details by using E-chart template.
- Developed asynchronous webservice called when users buy and sell stocks by using request queue. OAuth SSO are realized and users can login through GitHub. Communication channels between server, client and web service server are encrypted by TLS.
- Use MySQL as the database for the website.
- Meeting are held every morning to report last day work.

URL: *https://github.com/UTD-Silvermont*

Data Analysis and Machine Learning with Python

- Implement Linear Regression Algorithm to analysis social data.
- Implement Decision Tree classifier by training and testing on monks data. Generate Confusion matrix to analysis performance.
- Implement Naïve Bayes and Logistic regression classifier and apply these classifiers to distinguish between spam and ham emails. Compare performance of classifiers with or without stop words.
- Implement SVM classifier to diagnose cancers. Different model getting from different kernels are compared.
- Implement KNN classifier / K-mean clustering to compress images. The performance between KNN classifier and K-mean clustering are compared.

URL: *https://github.com/ZailinYuan/Machine-Learning.git*

Database Design Jun.2019
Implement SQLite with **Java**

- The database must be used by command line. It contains functions like insert, query, update, delete with or without selection condition.
- Meta-data are contained in the database file systems.
- The database is based on file system of Bit string I/O. A file system composed of pages of size 512B are realized. All operations (insert, query, update and delete) are based on bit string operation on database files.
- Index file system based on B+ tree is also developed for high performance of query records in database.

URL: *https://github.com/ZailinYuan/MazePathSearcher.git*