# **Long Chen**

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SKILLS: Java, JavaScript, React, Redux, HTML, CSS, Ruby, Ruby on Rails, Python, Shell Script, R, Mongoose, MongoDB, Node.js, Express.js, MySQL, SQL, SQLite3, PostgreSQL, Webpack, jQuery, Git, Heroku

## **PROJECTS:**

Yulp Ruby on Rails, ReactJS

<u>live</u> | github

A Yelp cloned web app which allows users to search and write reviews of businesses

- Integrated front-end User Authorization, which communicates to the database to validate a user's credentials against a salted, hashed password digest by using BCrypt.
- Created an AWS S3 connection to hold businesses' photos via Active Storage associations, allowing the site to scale its media storage ability.
- Harnessed Redux single-state management to streamline communication between backend and frontend
  architecture and implement CRUD functionality, allowing users to create reviews and add photos to existing
  businesses.

Barter MongoDB, Mongoose, Express, React, Node.js

<u>live</u> | github

A web app where users can trade unwanted items for cash or other items

- Create post models, validation and controllers in the backend, index and show pages in the frontend. This allows the items to be properly stored, fetched in the backend, and the information of items can be properly shown in the frontend.
- Designed the autofill search function through frontend to backend, allowing users to find the target item(s) through the key words either in the name or category in the web app.
- Seeded the database with media resources and formats by taking advantage of MongoDB's document database structure, which facilitates all the members of team to use those data types.

#### Food Nutrition Analysis JavaScript, Canvas, CSS, Libraries, APIs

live | github

A JavaScript App shows users food pictures and nutrition analysis

- Used Foodish API to show users a random picture of the user selected food category.
- Utilized Edaman nutrition API to fetch the nutrient information of the user selected food category, then utilized Chart.js to plot bar graphs of the nutrition and ingredients. Therefore, users can view the minimum, maximum, average and medium of each nutrient, and the 5 most frequently used ingredients inside the food.

#### **COURSE PROJECTS:**

### Spam Filtering System Design Python, Machine learning

github

Designed a spam emails filtering system in Python and applied three different ML models: Naïve Bayes,
 Perceptron and Logistic Regression that detected and filtered out spam emails with about 93.5% accuracy

#### Network Jeopardy Protocol Python, Computer Network

github

- Designed a program in Python that used select API to handle multiple connections concurrently and achieved asynchronous network programming.
- Implemented TCP connection for server and client and achieved handling multiple connected clients with Q&A mode.

## **EDUCATION & PUBLICATION:**

University of Delaware - Ph.D. candidate in Computational Chemistry,	current
<u>AppAcademy</u> - 1000-hour immersive full-stack web development intensive with <3% acceptance rate	2021
Shanghai Jiao Tong University - M.S. in Computational Chemistry,	2013
Huazhong Agricultural University – B.S. in Chemistry,	2010

Chen, Long, Fenglei Cao, and Huai Sun. "Ab initio study of the  $\pi-\pi$  interactions between CO2 and benzene, pyridine, and pyrrole." *International Journal of Quantum Chemistry* 113.20 (2013): 2261-2266.