# **Ruby CHEN**

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# **SUMMARY**

Seeking a full-time software development engineer, front end, full stack and backend position.

Solid software engineer with strong programming and analytical skills. Has a wide range of **software development internships and project experience**, including full-stack, web application development and recommendation system with **React**, **Vue**, **Angular**, **JAVA**, **PYTHON**, **MYSQL**, **MangoDB**, **Django**, **Flask and Spring**. 2+ years of programming experience

#### **EDUCATION**

#### University of Southern California, Los Angeles, CA

*Jan 2020 – May 2022* 

Master of Science, Applied Data Science

#### Beijing Jiaotong University, Beijing, China

Sep 2015 - Jun 2019

Bachelor of Science, Information System and Information Management

#### PROFESSIONAL EXPERIENCE

# Vision X (React, Django, D3.js, MySQL, AWS)

May 2021 - Present

Software Development Engineer Intern (Los Angeles, CA)

- Developed web application for the North America Smart Plant Home Planting by constructing robust API based on Python Django Framework.
- Constructed UI components in the frontend using **HTML**, **CSS**, **JavaScript** within **React** for responsive design and applied **D3.js** to animate product monthly usage table, visualize main functions of the website.
- Implemented user registration, login, and online shopping features with Amazon Relational Database Service (RDS) to store user and shopping data. Embedded MySQL queries in Django to facilitate searching, adding, updating, and deleting records.
- Embed plant diseases recognition and expert chatting room function into the website page with **Django** which reduce the cost of human reviews by \$5k per week.

#### Shenzhou Digital (Vue, Java Spring Boot, Mongo dB)

*May 2019 – Nov 2019* 

Software Development Engineer Intern

- Participated in building interactive user interfaces such as website homepage, payment page, and user addresses input page of payment system with **Vue framework**.
- Implemented end-to-end tests for interface features by using **Spring MVC**, **Spring MyBatis**, and **Spring Boot framework** to enable the front end client to access server and database in the backend.
- Built non-relational database **MongoDB** to store and capture data then create MyPage function.
- Improved the performance of search function based on NLP techniques with Word2vec to extract user input text contents and automated the responses accordingly, which increased the accuracy to 99.1%.

# **PROJECTS**

### AMC Ticket Search Platform (Python, React, JavaScript, Flask, MySQL)

May 2021 - Sep 2021

- Created an interactive web page based on full stack enabling users to search tickets, view recommended Movies, view movie details, and add them to Wishlist.
- Implemented fronted websites with React framework which adopted responsive design approach and implemented sever side with Flask.
- Designed and implemented a relational database (MySQL)schema to persist, process events and user behavioral data.
- Deployed server side to AWS EC2 to handle 100 queries per second tested by Apache JMeter.

#### Airline Office Administration System (Java, TypeScript, Angular, Spring, Android app)

Jan 2021 - May 2021

- Built the administrator login feature and ticket query feature with **RESTful APIs** enabling both administrator and customers to query ticket and real-time flight information with **JAVA Spring framework**.
- Constructed fronted responsive web pages supporting different devices using TypeScript language and Angular framework.
- Developed an Android mobile app in JAVA which achieves the same features and handle networking operations with Volley framework.
- Implemented frontend websites with **Angular**, which adopted responsive design approach and fit in mobile with **Bootstrap**.

# Weenix Operating System Development (C, UNIX Commands, Kernel)

Aug2020 - Nov 2020

- Created the original processes and threads to simulate and test the operating system with C language.
- Implemented a virtual file system to enable file naming, file protection, file abstraction API, **kernel** data structures, memory mapping files, and sharing.
- Developed virtual memory to support the association of text segment, data segment, and user program address via mapping and test in UNIX command.

#### TECHNICAL STRENGTHS

- Programming Languages: Java, Python, C, SQL, JavaScript, TypeScript, HTML, CSS, Spark, Unix Commands
- Frameworks: React, Vue, Angular, Bootstrap, Spring Boot, Django, Flask, Volley, MapReduce
- Databases: relational database (MySQL) and NoSQL databases (MongoDB)
- Tools: Tableau, AWS, Microsoft Access, Visual Studio, PyCharm, Eclipse, Process On, Excel