

Tao Chen

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EDUCATION

Rensselaer Polytechnic Institute (RPI), Troy, New York

Sep 2018 – Dec 2020

Master of Science in Information Technology and Web Science (Software Design and Engineering Track)

Master of Science in Quantitative Finance and Risk Analytics (dual degree)

Cumulative GPA: 3.67/4.0

Relevant Courses: Data Structures, Operating Systems, Software Development, Database Systems

Nanjing University of Finance and Economics (NUFE), Nanjing, China

Sep 2012 – Jun 2016

Bachelor of Science in Finance

PROFESSIONAL EXPERIENCE

RPI Ambulance Member Management System, RPI

Jan 2020 – May 2020

- Developed user interface for users to send different requests based on their roles. For example, administrators can create new member, make credential, and add checklist items to a credential; Trainer can check off items in the checklist, vote for promotion, etc. (HTML, CSS, JavaScript)
- Built an HTTP server with node.js and implemented RESTful APIs by creating Express Router to handle HTTP requests and responses efficiently.
- Used Postgres SQL to store user data such as user credentials (identify user's role), user permission and checklist_items, etc.

PROJECTS

React JS based Starlink Trajectory Visualization

July 2020 - Sep 2020

- Setup the Repo by leveraging the React official CLI tool, create-react-app, and use NPM to manage project dependencies.
- Used Ant Design component library to build forms to collect user observation geoinformation (longitude, latitude, etc.)
- Fetch nearby satellites information and position prediction data through the N2YO API(s)
- Animated selected satellite paths on a world map using React-Simple-Map to improve the user-friendliness.
- Deployed the dashboard to Amazon Web Service for demonstration.

Spring and Hibernate based Shopping and Ordering system

July 2020 – Sep 2020

- Built a web application based on Spring MVC to support item search and listing (dependency injection, inversion of control, REST API, etc.).
- Implemented security workflow via Spring Security for user authentication and authorization.
- Created a MySQL database to store user-generated data (user profile, item information, order history) and utilized Hibernate to provide better support of database operations.
- Developed a Spring Web Flow to support item ordering.

Job Search and Recommendation Service Development

May 2020 – July 2020

- Developed an easy-use interactive web page for users to search nearby jobs and apply for the positions. (HTML, CSS, JavaScript, AJAX)
- Implemented RESTful APIs by creating several JAVA servlets to handle HTTP requests and responses efficiently.
- Created a MySQL database to store user data and position data retrieved from Github API, and deployed it to Amazon RDS for better simplicity and scalability.
- Explored several recommendation algorithms and used MonkeyLearn API to extract keywords from the jobs' description to implement a content-based algorithm.
- Deployed service to Amazon EC2 for better performance.

SKILL SET

Programming languages: JAVA, C, C++, Python, HTML, CSS, JavaScript, SQL, XML, R

Framework & Libraries: React, Hibernate, Spring, Tomcat, AJAX

Tools: MySQL, PostgreSQL, Node.js, Docker, AWS, Android Studio