

Tao Chen

Phone: 917-318-6995 **Email:** waldochan18@gmail.com

Address: 1906 River View Rd, Green Island, NY, 12183

GitHub: <https://github.com/TaoChen18> **LinkedIn:** <https://www.linkedin.com/in/tao-chen-0a5a77159/>

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), GPA: 3.67/4.0

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

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

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

PROFESSIONAL EXPERIENCE

RPI Ambulance Member Management System, RPI

Jan 2020 – May 2020

- Developed user interface for administrators to create new member, make credential, and add checklist items to a credential, and for a trainee to check off items in the checklist, and vote for promotion. (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 PostgreSQL to store user data such as user credentials (identify user's role), user permission and checklist_items, etc.

Graduate Teaching Assistant for Data Structures, RPI

Jan 2020 - May 2020

- Held weekly data structure labs to help students solve problems and make students have a deeper understanding of data structures.
- Held weekly office hours to help students solve difficult problems encountered in homework and exams.
- Responsible for grading students' homework and exams, added or improved Rubric's grading standard.

PROJECTS

A Tinder-Like Android News Application Development Based on MVVM pattern

Sep 2020 – Oct 2020

- Implemented the bottom navigation of three main fragments with BottomNavigationView
- Implemented network APIs with Retrofit and LiveData to pull the latest news data from newsapi.org
- Page navigation with JetPack navigation component, adopted SafeArg for type safety when passing parameters.
- Integrated a 3rd party CardStackView(RecyclerView) to support swipe gestures for liking/disliking
- Built the Room Database with LiveData & ViewModel to support local cache and offline mode

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.

Spring and Hibernate based Shopping and Ordering system

July 2020 – Sep 2020

- Built a web app based on Spring MVC to support item search and listing (dependency injection, IoC, RESTful APIs, 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 a web app which can 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.
- Retrieved job data from Github API, created a MySQL database to store all data, 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.