

# Runbo(Chuck) Zhao

<https://rzhao03.mysite.syr.edu>  
 runbozhao@hotmail.com | 315.883.9767

## EDUCATION

### SYRACUSE UNIVERSITY, USA

MSC., COMPUTER AND INFORMATION  
SCIENCE

Grad. Dec 2018 | Syracuse, NY  
GPA: 3.9/4.0

### XIDIAN UNIVERSITY, CHINA

BENG., MATHEMATICS AND APPLIED  
MATHEMATICS

Grad. June 2016 | Xi'an, China

## LINKS

Github:// [Runbo94](#)  
 LinkedIn:// [Runbo94](#)

## COURSEWORK

Internet Programming  
 Object Oriented Programming C++  
 Software Engineering  
 Operating System  
 Mathematics Basis for Computing  
 Design and Analysis of Algorithm  
 Computer Architecture  
 Introduction to Database Management  
 System  
 Randomized Algorithms: Think and Code  
 Structured Programming and Formal  
 method

## SKILLS

### PROGRAMMING

Over 5000 lines:

Java • JavaScript • TypeScript • Matlab

Over 1000 lines:

CSS • HTML • SQL •  $\LaTeX$  • C++

C • Haskell

Familiar:

NoSQL

### FRAMEWORK

Angular • React • Express.js

Hapi.js

### DATABASE

MongoDB

Firebase Real-time database

### OTHER TOOLS

Git • npm • Heroku • PostMan

## EXPERIENCE

### SYRACUSE UNIVERSITY(E&CS) | UI DEVELOPER (UNPAID INTERN)

February 2019 - Now

- Built the responsive Navbar & Modals with Bulma by using HTML5, CSS3 & JSX.
- Designed the core components with CRUD operations and RESTful routing with the use of react-router-dom.
- Developed the Container components to subscribe to the Redux state.
- Connected React with Redux by using the Provider of react-redux and created the single store.
- Created actions with Action Creator and applied redux-thunk middleware to the store to handle Async actions.
- Developed Reducer functions to handle the state data changes and used axios to make HTTP request to persist the data in the database.
- Implemented RWD such as page layouts, menu, navigation buttons, icons and drop-down lists.
- Implemented the server-side with Node.js, Express.js and connected it with MongoDB by using mongoose.
- Used connect, mapStateToProps and mapDispatchToProps to connect the application with the store.
- Created database Schema with mongoose based on the data flow requirements and features.
- Performed Unit testing for some modules and features with Jest in the development process.
- Implemented RESTful Services with HTTP methods like GET, POST, PUT & DELETE.
- Worked on the document-oriented NoSQL database program - MongoDB for consistent data storing by using JSON-like documents with Database schema.

## PROJECT

### WWW.GITGROUP2018.COM | A WEB BASED SOFTWARE DEVELOPMENT MANAGEMENT SYSTEM

September 2018 - Now

- Seamless integration with GitHub keeps all of your GitHub Issue data in sync across both platforms in real time.
- Access the GitHub personal data via GitHub REST API v3. Authorize users through GitHub OAuth APP three steps.
- Drag and drop the card among different columns which represent different stage of the development process. Implement beautiful, natural movement of draggable and droppable items. Draw a variety of Agile charts using ReCharts.
- Use highly-productive Typescript to build Node server.
- **Tools:** HTML5, CSS3, Bulma, React, TypeScript, ts-node, MLab, Heroku

### NACHOS OPERATING SYSTEM | NOT ANOTHER COMPLETELY HEURISTIC OPERATING SYSTEM

August 2018 - December 2018

- Added multi-threading capabilities to Nachos.
- Created Process functions and Thread Fork functions like FORK, TERMINATE & JOIN.
- Implemented several system call routines for user programs and round-robin scheduling like FORK\_POS, WAIT\_POS, EXIT\_POS.
- Implemented Round-robin scheduling. Round-robin scheduling gives each process a fix time slice to run.
- **Tools:** C++, Vscode, Linux

## **WWW.JAJANG.CLOUD | A CLOUD-BASED RESTAURANT MANAGEMENT PLATEFORM SERVICE, DESIGNED FOR THE SMALL AND MEDIUM RESTAURANTS.**

October 2017 – April 2018

- Implement the table status monitor function by the Firebase realtime database. The RxJs makes it possible to do real-time, bidirectional and event-based communication between managers and customers.
- Achieve basic E-commerce functions, such as: authentication and authorization, product lists, shopping cart, etc.(seeRunbo94/JaJang-report). Also, to make JaJang more functional,some third-part modules is imported in JaJang such as: e-ngx-print, ngx-qrcode, neu-charts.
- Beautiful style of pages including some animation and fashion web component like card, carousel, modal. Also ng-bootstrap is also well designed for responsive pages, which is suitable for using JaJang on both PC and mobile platform.
- **Tools:** HTML5, CSS3, Bootstrap, TypeScript, Angular5, Firebase

## **WWW.RENMOVIE123.COM | AN ONLINE MOVIE RATING AND RENTING SERVICE**

May 2018 – September 2018

- Full-stack developed using React + Express + MongoDB model. deployed by Heroku.
- Build the frontend by React with some key components, including functional and well OOP Designed List component, implementing pagination, filtering, and sorting, Form component implementing submission and validation. etc.
- Using Node.js to design the restful API backend and do fully unit test and integration test by Jest.
- **Tools:** HTML5, CSS3, Bootstrap, JavaScript, React, NodeJs, ExpressJs, MongoDB

## **RESEARCH**

### **PAGERANK BASED ANALYSIS OF NETWORK NODE INFLUENCE**

July 2014 – September 2014

- Treat edge weight as a new input and got improved PageRank algorithm, extended the original PageRank iteration formula from one dimension to multi dimension.
- Take Erdos scholar network and Chinese social networks as examples and verified the reliability of the algorithm.