

# Junjie Ding

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## SUMMARY

Master student of Information Technology and Web Science, actively seeking full-time opportunities in Software Development / Full-stack Development. Skilled Objective-Oriented programmer.

## EDUCATION

**Rensselaer Polytechnic Institute, Troy**

Jan. 2019 – Present

Master of Science in Information Technology and Web Science

Courses: Data Structure, Algorithms, Operating System, Parallel Programming, Networking programming, Database Systems, Computer Vision, Operating system, Software Design, Distributed Systems

**Rensselaer Polytechnic Institute, Troy**

May. 2014 – Dec. 2018

Bachelor of Science in Computer and System Engineering

## SKILLS

- **Programming:** C++, Python, C, Java, JavaScript, Shell
- **Database & Big Data:** Machine Learning, MySQL, NoSQL, MongoDB, Scikit-learn
- **Web Development:** Node.js, Django, RESTful, React, Redux, HTML
- **Infrastructure & Tools:** AWS, Elastic Search

## EXPERIENCE

**RPI Cognitive and Immersive Systems Lab, Troy, NY**

May. 2018 – Jan. 2019

*Research Assistant*

- Cooperated with IBM to analyze and optimize the immersive mandarin learning experience
- Designed and created both relational and NoSQL database using MongoDB to store eye gaze, pointing, gesture and voice data from users – [MongoDB](#), [NoSQL](#)
- Applied Numpy in Python to build human skeleton model using the data collected from Kinect for visualization and simulation – [Numpy](#)
- Built a classifier for the gesture recognition in python to classify human action using hidden Markov model – [Classification](#), [Hidden Markov Model](#)

## PROJECTS

**Distributed Flight Reservation System**

Aug. 2019 - Present

- Designed and implemented a distributed flight reservation system using distributed Algorithms
- Utilized Wu-Bernstein replicated log and dictionary algorithm to solve the consensus problem
- Implemented UDP sockets for network communication.

**RPI & General Electric Capstone Project**

Jan. 2019 – May. 2019

- Designed and implemented a digital real-time dashboard with backend Elastic Search engine and frontend UI for GE to provide a livestream of KPI metric tracking
- Built a backend server using Node.js to pipe real-time data by consuming API from GE internal platform – [Node.js](#), [API](#), [Elastic Search](#)
- Applied JWT (JSON Web Token) to implement user authentication logic, provide persona based access and launch different UI views based on different access privilege – [JWT Authentication](#)
- Designed the front-end UI dashboard and developed the web service in RESTful framework – [RESTful](#)
- Performed data analysis and interactive visualization for KPIs, metrics and event countdowns

**MERN STACK social network application**

Oct. 2018 – Jan. 2019

- Designed and implemented a social network application using MERN stack – [MongoDB](#), [Express](#), [React](#), [Node.js](#)
- Designed and built users, profiles, posts and comments API routes, and performed extensive API testing with Postman – [Postman](#)
- Developed frontend in React to work with the API and used Redux for app state management – [Redux](#)
- Created a build script, secured keys and deployed to Heroku using Git – [Heroku](#), [Git](#), [Shell Script](#)