

# Hongxin Wu

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## Summary

Strong experience in developing web and mobile applications. Proficient in JavaScript full stack development. Familiar with Java Servlet, Spring framework, Android development and neural networks. Constantly curious about new technologies and concepts. Desire to learn new skills and grow. Enjoy building quality applications with clean code and detailed docs. Eager to bring improvements by leveraging better technologies. Prepared to solve problems and overcome challenges.

## Education

### Syracuse University

Sep.2016 - May.2018

MASTER OF SCIENCE IN COMPUTER SCIENCE

GPA: 3.8/4.0

Notable Coursework: Design and Analysis of Algorithms, Computer Architecture, Object Oriented Design, Principles of Operating Systems, Artificial Neural Networks, Computer Security, Internet Programming

### South China University of Technology

Sep.2011 - Jun.2015

BACHELOR OF SCIENCE IN APPLIED PHYSICS

GPA: 3.5/4.0

## Projects

### Events Schedule

[Github](#) [Demo](#)

- Designed and developed an event schedule web application which allows user to register/login and add/update/remove events.
- Built a responsive web page with **React** and **Redux**.
- Created a **MongoDB** database to store user info and event data, and built **RESTful** APIs with **Node.js**, **Express.js** and **Mongoose**.
- Implemented server-side token based user authentication with **Passport.js**, **JsonWebToken** and **Bcrypt**.
- Utilized **Joi** to validate request body, and **Winston** to log requests, response status, response time, and errors.
- Tested the API with **Mocha**, **Chai** and **Supertest**, deployed the app to **Heroku**.

### Location based Social Network

[Github](#) [Demo](#)

- Created a geolocation-based social network web application with **React** and **Ant Design**.
- Utilized **Google Map API** to implement features such as "Create Post", "Nearby Posts As Gallery" and "Nearby Posts In Map".
- Built a basic token based registration/login/logout flow with **React Router v4** and server-side user authentication with **JsonWebToken**.

### NBA Player Strength Visualization

[Github](#) [Demo](#)

- Developed a dashboard using **React**, **D3.js** and **Ant Design** backed by API from stats.nba.com to visualize individual player's shot data, including a shot chart and user profile view.
- Created 4 extra filters and 2 shot themes(hexbin and scatter) to provide more customized visualization on the shot chart.
- Built an autocomplete player search bar providing a list of players(image and name) in the suggestion list.

### News App for Android

[Github](#)

- Built a Tinder-like News app based on **MVP** architectural pattern.
- Created **ViewPager** with **BottomBar** that holds News/Save/Setting Tabs' state in the MainActivity concurrently.
- Utilized Mindorks's **PlaceHolderView** to implement swiping gestures for liking/disliking the news.
- Integrated **Retrofit** and **Rxjava** to pull the latest news data from NewsAPI.org.

### Satellite image classification

[Github](#)

- Built a deep **convolutional neural network** based on U-Net architecture using **Keras** with **TensorFlow** backend.
- Fed in 500MB satellite images data and trained the network to classify each pixel into one of six landscape classes.
- Optimized the number of down-samplings to avoid overfitting, classification accuracies of all landscape classes are increased to 90.11% - 98.30% after training.

### Online Shop

- Designed and built an online shopping website for users to browse products, edit shopping cart and checkout.
- Implemented the web application using **Spring Web MVC** to achieve loosely coupling.
- Created a **MySQL** database and perform database operations with **Hibernate**.
- Developed a **Spring Web Flow** for checkout and enabled **Spring Security** to implement user authentication as well as authorization.
- Built an advertising platform that implements second-price bidding algorithm, and integrate the platform into online shopping website to deliver ads to users.

## Skills

**Programming Language** JavaScript/ES6+, TypeScript, Java, Python, C++

**Technologies & Framework** Node.js, Express.js, Mocha, React, Redux, HTML5, CSS, MongoDB, MySQL, Hibernate, Spring, Keras