# Hannah Zhang

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SKILLSET

Programming/DB • Python 3 • JavaScript/ES6 • MongoDB Platforms/Other

Programming/DB	<ul> <li>Python 3</li> </ul>	<ul> <li>JavaScript/ES6</li> </ul>	<ul> <li>MongoDB</li> </ul>	Platforms/Other	•
	<ul> <li>MySQL</li> </ul>	<ul> <li>HTML5/CSS3</li> </ul>	<ul> <li>GraphQL</li> </ul>	• AWS	<ul> <li>Agile/JIRA</li> </ul>
Frameworks/	<ul> <li>ReactJS</li> </ul>	<ul> <li>Redux/ Redux Saga</li> </ul>	<ul> <li>Node/Express</li> </ul>	<ul> <li>Git/Bitbucket</li> </ul>	<ul> <li>webpack/ Babel</li> </ul>
Libraries/APIs	<ul> <li>Bootstrap</li> </ul>	<ul> <li>RESTful</li> </ul>	• SASS	<ul> <li>DevOps</li> </ul>	<ul> <li>Jest/Enzyme</li> </ul>
<b>PROJECTS</b>					

#### **React Web Application Development (at JDA Software)**

01/2018 - 05/2018

- Tech Stack: ES6, Redux, Redux Saga, React Router, Node.js, Material-UI, Jest, Enzyme, underscore.js, D3.js
- Adopted container/component architecture and strived to build reusable, generic and testable components.
- Contributed as a full team member of the Product Development organization in Agile SDLC methodology by participating in planning, grooming, product demonstration and, team retrospectives.
- Collaborated with UI/UX team to translate high fidelity wireframes, build features, and successfully delivered functionality on time and within scope.
- Worked with backend developers to use RESTful API to consume, display, filter, search complex information.

## My own React Web App. Playground (ES6, React, Redux, Redux Saga, Express, MongoDB, github.com/zzz-icy)

- Developed based on react-boilerplate as the whole data flow structure. Implemented Passport strategy for cookie-based authentication with Google Strategy using the OAuth 2.0 API and client-side billing.
- Separated production and development resources with advanced API key handling techniques.
- Build RESTful services (APIs) using Node.js, Express.js, and MongoDB
- To implement my own design ideas to the UI part using various UI libraries and style using SCSS.
- Build reusable user inputs with Redux Form, complete with navigation

## Wireless Sensor Network Model (JavaScript, jQuery, HTML/CSS, zzz-icy.com)

- Visualized the process as an interactive web application using JavaScript, jQuery and HTML5 Canvas.
- Displayed statistic information using the Canvas.JS API.
- Modeled WSN using Random Geometric Graph to simulate the selecting of communication backbones in linear time through applying Smallest-Last Coloring algorithm and various data structures.

#### Movie Recommendation System (Python, MRJob, Amazon EMR)

- Performed Item-based Collaborative Filtering on MovieLens dataset using MRJob in Python as the interface for Hadoop to handle with MapReduce tasks.
- Analyzed 1 million movie ratings across 16 machines on Amazon Elastic MapReduce to find similarities among movies for the recommendation.

#### Wine Quality Prediction - Machine Leaning (Python, Scikit-Learn, Pandas)

- Provided guidance to vineyards on quality and price expected on products without reliance on volatile factors.
- Created wide and deep NN to identify wine quality, tuned hyper-parameters and evaluated generalization performance through cross-validation.
- Performed exploratory analysis, data cleaning and preprocessing using Pandas, Scikit-learn and Seaborn.

### Interactive Product Design - Streams (UI/UX, Proto.io)

- Collaboratively developed the UI/UX for an integrated platform providing users greater control over multiple social media feeds.
- Adopted guidelines to gather requirements, write user stories, created user journey, hand-drawn wireframes and converted into a hi-fi prototype on Proto.io.

#### WORK EXPERIENCE

PUBLICATION	PATENTS	CERTIFICATION
Xi'an University of Posts and Telecoms	B.S. in Electrical Engineering	09/2007 - 07/2011
Soochow University	M.S. in Electrical Engineering	09/2011 - 07/2014
Southern Methodist University	M.S. in Computer Science	09/2016 - 05/2018
EDUCATION		
ASIC Testing Intern	Institute of Acoustics, Chinese Academy of Science	s 03/2013 - 12/2013
<b>Electronics Assembly Technologist</b>	Shanghai Aerospace Equipment Manufacturer	07/2014 - 04/2016
Product Development Intern(UI)	JDA Software, Irving, TX	01/2018 - 05/2018

PUBLICATIONPATENTSCERTIFICATIONMEMS Analog Feedback AccelerationA Serial Bus Communication Bridge, PatentGoogle Analytics IQ

MEMS Analog Feedback Acceleration A Serial Bus Communication Bridge, Patent Google Analytics IQ Sensor and its Testing, Technical Acoustic Number: 201420121985.9 BEC, Vantage