

Hannah Zhang

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SKILLSET

Programming/DB	<ul style="list-style-type: none">• Python 3• MySQL	<ul style="list-style-type: none">• ES6• HTML5/CSS3	<ul style="list-style-type: none">• C• Java	Tools/Platforms/Other	<ul style="list-style-type: none">• D3.js• JIRA
Frameworks/	<ul style="list-style-type: none">• ReactJS	<ul style="list-style-type: none">• Redux/ Redux Saga	<ul style="list-style-type: none">• Express.js	<ul style="list-style-type: none">• Git/Bitbucket	<ul style="list-style-type: none">• Azure
Libraries/APIs	<ul style="list-style-type: none">• Material-UI	<ul style="list-style-type: none">• REST	<ul style="list-style-type: none">• MapReduce	<ul style="list-style-type: none">• UX	<ul style="list-style-type: none">• Yarn

PROJECTS

React JS Web-Application Development 01/2018 - 05/2015

- **Tech Stack:** ES6, Redux, Redux Saga, React Router, Material-UI, Jest, Enzyme, underscore.js
- Worked as a Frontend developer on a brand-new supply chain web application.
- Adopted container/component architecture and strived to create reusable and generic components.
- Collaborated with UI/UX team to translate high fidelity wireframes, build features, and delivered functionality on time and within scope.
- Contributed as a full team member of the Product Development organization in Agile SDLC methodology.
- Worked with developers to use REST-based API.

Web API for Management Application (Express.js, SQLite, node-sqlite3)

- Created full CRUD API using Express.js and SQLite for an internal management tool of a coffee shop.
- Implemented API's routing functionality using Express.js.
- Used node-sqlite3 to perform create, read, update and delete operations on an SQLite database within JavaScript.

Wireless Sensor Network Model (JavaScript, jQuery, HTML/CSS, [check this out on zzz-icy.github.io!](https://github.com/zzz-icy))

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

Story Books (JavaScript, AngularJS, MongoDB)

- A social network for creating public and private stories.
- Developed the client side using the template engine, handlebars.js. Implemented Passport strategy for authenticating with Google using the OAuth 2.0 API.
- Created users and stories models with Mongoose ODM.
- Implemented a dashboard UI for users to manage their stories using the CSS framework, Materialize.

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 Learning (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 UI/UX to create 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

Product Development Intern	JDA Software, Irving, TX	01/2018 - 05/2018
Electronics Assembly Technologist	Shanghai Aerospace Equipment Manufacturer	07/2014 - 07/2015
ASIC Testing Intern	Institute of Acoustics, Chinese Academy of Sciences	03/2013 - 12/2013

EDUCATION

Southern Methodist University	M.S. in Computer Science	09/2016 - 05/2018
Soochow University	M.S. in Electrical Engineering	09/2011 - 07/2014
Xi'an University of Posts and Telecoms	B.S. in Electrical Engineering	09/2007 - 07/2011

PUBLICATION

MEMS Analog Feedback Acceleration Sensor and its Testing, Technical Acoustic

PATENTS

A Serial Bus Communication Bridge, Patent Number: 201420121985.9

CERTIFICATION

Google Analytics IQ
BEC, Vantage