**YUHAN ZHANG**

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**SUMMARY**

* Full-stack **JavaScript** developer with more than **5 years** of experience in software development covering all aspects.
* Very skilled in developing user-friendly web pages using **HTML5**, **CSS3** and **JavaScript**.
* Extensively Worked on interactive **frontend** web pages using **React** and **JavaScript**.
* Lots of hands-on experience developing single page applications using **JavaScript**, **React** and **React Router**.
* Developed **React** components and use these elements to make more complex UIs in the project.
* Very skilled in working on **React** State and State Hooks to update pages efficiently on change of data.
* Expertise in working on **React** Component **Lifecycle** Methods and Effect **Hooks** to control rendering and application workflow.
* Proficient in working with **Redux** that keeps easily manageable states across the webapp, and **Redux Thunk** middleware to handle async data updates involving HTTP request.
* Massive experience in working on **JavaScript** backend web servers that serves both static pages and APIs using **Node.js** and **Express.js**.
* Skilled in developing **REST API** server using **JavaScript**, **Express.js** and **Express Router** for handling different requests.
* Considerable experience working on **CRUD** operations on **MySQL** and **NoSQL** (**MongoDB**) with **JavaScript** in **Express** controller.
* Developed **MySQL** and **MongoDB** database schemas in Express model.
* Plenty hands-on experience with **Enzyme** for testing **React** components and **Jest** for testing **Express** API servers.
* Numerous hands-on experiences with **Git** to manage project progress and teamwork.
* Worked extensively on different operating systems including **Windows**, **macOS** and **Linux**.
* Developed **Android** apps and web servers using **JAVA**.
* Worked on using **Python** to collect data from websites and APIs.
* Worked in teams with good teamwork and communication, practiced **Agile** development with **Scrum**.
* Enjoy coding and learn fast.

**PROFESSIONAL SKILLS**

* **Programming Languages:** HTML5, CSS3, JavaScript, Java, C, Python.
* **Frameworks and Libraries:** Node.js, Express.js, React, Redux, Redux Thunk, Bootstrap.
* **Databases:** MySQL, MongoDB.
* **Operating Systems:** Linux, Windows, macOS.
* **Software Development**: MVC, Scrum, git, REST API
* **Testing Tools:** Enzyme, Jest, Postman

**WORK EXPERIENCE**

**Verizon San Diego, CA**

**Full-stack Engineer Jun 2020 till now**

**Cell Site Task Management Web App**

A full stack **JavaScript** single page web app that helps cell site engineers on planning their tasks, managing inventories, sharing resources, and updating progress.

**Responsibilities:**

* Designed intuitive interface and user experience using **HTML5**, **CSS3** and **Bootstrap**.
* Developed **React** Components with **JavaScript** for different UI elements including calendar, inventory list and resource status and navigation bar for reuse.
* Created the single page application using **React Router** that matches different routes to different components.
* Implemented efficient rendering of data and user input validation with **React State**.
* Used **lifecycle methods** and **Hooks** to control rendering and manage workflow.
* Kept data including authentication, user input and API data across the app using **Redux**. It keeps the state while navigating through pages for less re-rendering. Created reducers, store and action creators using **JavaScript**.
* Mapped **Redux** store and actions to the **props** of React Components for accessing and updating the store.
* Manage async HTTP API requests with axios and **Redux-thunk** to make sure the UI is updated as soon as a response is received.
* Created **Node.js** environment for backend server and used **NPM** to manage **JavaScript** modules including **Express.js** and **mongoose**.
* Built a **RESTful** API server with **Express** as **Controller** and **Model**.
* Used **Express Router** to handle different API requests on different URIs.
* Designed **NoSQL** (**MongoDB**) schema for engineers and areas to store data for maintenance areas including tasks and resources and linked to engineers.
* Implemented controllers written in **JavaScript** with **mongoose** that connects to **MongoDB** and completes **CRUD** operations.
* Worked in a **Scrum** team practicing **Agile** software development.
* Used **git** for collaboration with team and version control.

**Blue Shield of California San Diego, CA**

**Software Engineer Sep 2019 to May 2020**

**Member Information Management System**

A full stack member information management system based on **JavaScript** and **MySQL** that allow representatives to easily add, remove, edit, and search information of members.

**Responsibilities:**

* Designed the pages with **HTML5**, **CSS3**, and **JavaScript**. The main page has a table for displaying members and their basic information in each row and other tools for navigating, sorting, and searching.
* Developed **Single Page Application** using **React Router** that maps different routes to their corresponding components.
* Built reusable **React Components** using **React** and **JavaScript**. The form component in the page for adding member is reused in the page for editing member.
* Implemented **infinite scrolling** of members list by using **Intersection Observer** with **JavaScript** that triggers when the DOM elements table and end of table intersects.
* Used **JavaScript** functions and **React state** to monitor and validate controlled form input when adding, editing, and searching members.
* Used **JavaScript** function **fetch()** to send new member or updated member data in **JSON** to server using
* Handled asynchronous HTTP API requests that consumes REST API using **JavaScript** function **fetch()** to get member list and basic information from server.
* Stored data such as member list data and modal status data in **React state** that updates the page efficiently on data change.
* Implemented **JavaScript** backend API server running on **Node.js** environment.
* Used **Express.js** framework to build the **RESTful** API server.
* Handled different **HTTP** requests including **GET**, **POST**, **PUT** and **DELETE** on different URIs with **Express Router**.
* Created the controller that connects to **MySQL** database and do **CRUD** operations with **JavaScript** and **Node.js** module **mysql**.
* Designed **MySQL** database schema for members and member groups with **Entity Relationship Modeling**.
* Utilized foreign key in **MySQL** database to join members table and plans table.
* Did indexing on name, date of birth etc. to improve sorting performance.
* Used **JOIN ON** in **MySQL** to get member groups’ inclusion relationship, with recursion if more levels are needed.
* Implemented pagination with **OFFSET** and **FETCH** in **MySQL**.

**Sybase Beijing, China**

**Front-end developer Jun 2015 to Aug 2018**

**Geolocation data web visualization tool**

A web-based geolocation data visualization tool for visualizing collected user movement data along with corresponding cell tower locations, as well as calculated user movement pattern.

**Responsibilities:**

* Model, View and Controller development using **MySQL**, **JSP Pages**, **Java Servlet**, **JDBC**.
* Used **JDK** and **Tomcat** as web server to run **JSP**.
* Built a search page with **HTML**, **CSS** and **JavaScript** that allows users to get data for specific time, user, and city.
* Created the map page using **JSP**, **HTML**, **CSS**, **JavaScript**, and Amap JavaScript API.
* Adjusted map functionalities with **JavaScript** to meet requirement.
* Developed **JavaBeans** class and used **JDBC** to get requested data from **MySQL** database.
* Used **JSP** to render the map by filling map page with data got from database.
* Designed **MySQL** schema to store collected user log data and cell tower data.

**EDUCATION**

* **University of California, San Diego** 
  + Master of Science in Electrical and Computer Engineering. Intelligent System, Robotics and Control.
* **Beijing University of Posts and Telecommunications**
  + Bachelor of Science. Major in Telecommunications Engineering with Management