

# Sheng Ma

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<https://github.com/masheal/masheal.github.io> | Seeking a full-time software engineer position.

## EDUCATION

• <b>Master of Science: Computer Engineering</b>		<b>Sep 2017 – Dec 2018</b>
• Northwestern University	3.317/4.0	Evanston, IL
• <b>Bachelor of Science: Electrical Engineering</b>		<b>Aug 2015 – May 2017</b>
• University of Missouri - Columbia	3.678/4.0	Columbia, MO
• <b>Bachelor of Science: Automation</b>		<b>Sep 2012 -Jul 2015</b>
• East China University of Science and Technology(ECUST)	3.3/4.0	Shanghai , China

## WORK EXPERIENCE

<b>Software Developer Intern</b>	<b>Jun– Sep 2018</b>
<b>IFLYTEK</b>	<b>Hefei,Anhui,China</b>
• Developed Car Interfaces with <b>Vue.js, H5, CSS, element-ui</b> to meet the new requirements of UI and UE.	
• Applied <b>axios</b> to communicate with backend APIs to obtain data.	
• Used <b>vue-router</b> to show the correct view of specific URLs.	
• Applied <b>vue modules</b> in programming to make code cleaner and easier to read.	
• Used <b>vuex</b> to establish channels between parent and child components, so as to make communications on data between each component easier and more efficient.	

## PROJECTS

### NearBy: Geo - Index Based Social Network

- Designed a geo-based social network web application (create/view posts, search, profile etc.) with **React JS**.
- Used **React Router v4** to implement basic token based registration/login/logout flow and implemented server-side user authentication with **JWT**.
- Implemented features such as "Create Post", "Nearby Posts As Gallery" and "Nearby Posts In Map" (**Ant Design, GeoLocation API and Google Map API**.)
- Built a web server (based on **Go**) to handle posting requests and deployed to **Google Cloud(GAE flex)**.
- Utilized **ElasticSearch (GCE)** to design geo-location based search functions for user to get all nearby posts within a certain distance (e.g. 200 km).
- Used **Google Dataflow** to dump posts data (stored in **BigTable**) to BigQuery for offline analysis.
- Implemented a spam-detection function of certain keywords at post level by **BigQuery**.

### React JS based NBA Player Strength Visualization

- Created a dashboard using **React, D3** and **Ant Design** backed by the player data fetched from an 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 shotchart.
- Optimized user experience by developing a autocomplete player search bar providing a list of players (image and name) in the suggestion list.

### Events Search and Ticket Recommendation: Java Web Service Development

- Developed an interactive web page for users to search nearby events and purchase tickets based on **HTML/CSS/JavaScript/Ajax**.
- Utilized **Apache Tomcat** as java servlets container to hold java servlets for **RESTful** APIs to handle HTTP requests and responses.
- Fetched the real events data (price, location, category, etc.) from Ticketmaster API and stored it in relational (**MySQL**) database.
- Implemented business recommendation with **content-based** recommendation algorithm.
- Transferred data from MySQL database to NoSQL database (**MongoDB**) to scale it up.
- Deployed the local server to **AWS(Amazon Web Service) EC2** instance to handle 93.7 queries per second without obvious loss of efficiency (tested by **Apache JMeter**).

## TECHNICAL SKILLS

- Java, SQL, Go, React, Vue, HTML, CSS, AWS EC2, Google Cloud, Big Query, Google Dataflow, MySQL, ElasticSearch, BigTable, Docker, Shell, Git/Github, Apache Tomcat, Design Pattern