

# Sheng Ma

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<https://github.com/masheal/masheal.github.io> | Seeking a software engineer intern 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 Engineer</b>	<b>May – Present 2019</b>
<b>United Nations</b>	<b>New York City, New York</b>
• Developed Alba(chat bot) for more than 39700 staff at UN in 193 member nations around the globe with <b>C#</b> and <b>Microsoft Bot Framework</b> for <b>five channels</b> (Web Chat, Google Home, Facebook, Skype, Microsoft Teams) in <b>six united nations official languages</b> (English, French, Spanish, Chinese, Russian and Arabic).	
<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

<b>NearBy: Geo - Index Based Social Network</b>
• Designed a geo-based social network web application (create/view posts, search, profile etc.) with <b>React JS</b> .
• Used <b>React Router v4</b> to implement basic token based registration/login/logout flow and implemented server-side user authentication with <b>JWT</b> .
• Implemented features such as "Create Post", "Nearby Posts As Gallery" and "Nearby Posts In Map" ( <b>Ant Design, GeoLocation API</b> and <b>Google Map API</b> .)
• Built a web server (based on <b>Go</b> ) to handle posting requests and deployed to <b>Google Cloud(GAE flex)</b> .
• Utilized <b>ElasticSearch (GCE)</b> to design geo-location based search functions for user to get all nearby posts within a certain distance (e.g. 200 km).
• Used <b>Google Dataflow</b> to dump posts data (stored in <b>BigTable</b> ) to BigQuery for offline analysis.
• Implemented a spam-detection function of certain keywords at post level by <b>BigQuery</b> .
<b>React JS based NBA Player Strength Visualization</b>
• Created a dashboard using <b>React, D3</b> and <b>Ant Design</b> backed by the player data fetched from an API from <b>stats.nba.com</b> 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.
<b>Events Search and Ticket Recommendation: Java Web Service Development</b>
• Developed an interactive web page for users to search nearby events and purchase tickets based on HTML/CSS/JavaScript/ <b>Ajax</b> .
• Utilized <b>Apache Tomcat</b> as java servlets container to hold java servlets for <b>RESTful</b> APIs to handle HTTP requests and responses.
• Fetched the real events data (price, location, category, etc.) from Ticketmaster API and stored it in relational ( <b>MySQL</b> ) database.
• Implemented business recommendation with <b>content-based</b> recommendation algorithm.
• Transferred data from MySQL database to NoSQL database ( <b>MongoDB</b> ) 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

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- 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