**Sheng Ma**

Address: Evanston, Illinois | [shengma2019@u.northwestern.edu](mailto:shengma2019@u.northwestern.edu) | 573-554-6387 https://github.com/masheal/masheal.github.io | Seeking a software engineer intern position.

**EDUCATION**

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

**WORK EXPERIENCE**

**Software Developer Engineer May – Present 2019**

**United Nations New York City, New York**

* Developed Alba(chat bot) for more than 39700 staff at UN in 193 member nations around the globe with **C#** and **Microsoft Bot Framework** for **five channels**(Web Chat, Google Home, Facebook, Skype, Microsoft Teams) in **six united nations official languages**(English, French, Spanish, Chinese, Russian and Arabic).
* Built Unite Cognition Tool with **React, D3,** and **Ant Design** backed by the data fetched from backend APIs to visualize the summarized article, clipped video and Q&A generated from uploaded articles.

**Software Developer Intern Jun– Sep 2018**

**IFLYTEK Hefei, Anhui, China**

* Developed Car Interfaces with **Vue.js, H5, CSS, element-ui** to meet the new requirements of UI and UE.
* Applied **axios** to communicate with backend APIs to obtain data.
* Used **vue-router** to show the correct view of specific URLs.
* Applied **vue modules** in programming to make code cleaner and easier to read.
* Used **vuex** 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