

Sheng Ma

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WORK EXPERIENCE

United Nations

New York City, New York

Software Developer Engineer at Emerging Technologies Team

May – Present 2019

- 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.

IFLYTEK

Hefei, Anhui, China

Software Developer Intern at Smart Car Team

Jun– Sep 2018

- 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.

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

SELECTED 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**.

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