FANGYUAN (CICI) ZHENG

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EDUCATION

M.S. in Computer Engineering, **University of Southern California** August 2020
B.S. in Computer Engineering, **Syracuse University** May 2018

SKILLS

Programming Languages: Java, C/C++, C#, SQL, MATLAB, R, GO, shell scripting
Databases/Cloud: Oracle, AWS EC2, AWS RDS, GCE, GKE, Docker, Git, Maven, CircleCI, MongoDB
Web/Mobile Development: Java Servlet, JavaScript/ES6, HTML5 & CSS3, React, Firebase, Android
Knowledge: OOP/OOD, Operating system, Networking, Data Structure, Database, A.I, Computer Graphic

WORK EXPERIENCE

WeChain: Spring-based Blockchain Financial Web Service **05/2019 - 08/2019**
Software Engineering Intern, Linklogis , Shenzhen, CN

- Collaborated with 20 team members maintained the web service platform on **Java Spring MVC pattern**.
- Designed a page application through the RESTful API and Webservice with **Mybatis** and **Swagger**; used ElasticSearch to provide a financial transaction search function; used **Redis** as local cache and **MySQL** database.
- Utilized **Apache Dubbo** and **Nachos** for centralized service discover and management.
- Built a secure scaling distributed web application through deploying to **Docker**, **Jenkins** and **Apache ZooKeeper**.

PROJECTS

Tinnews: a Tinder-like News Android App **07/2020 - 08/2020**

- Designed the Instagram Flavor News app based on Google Component Architectural **MVVM Pattern**.
- Implemented the bottom bar & page navigation using **JetPack** navigation component.
- Utilized **Mindorks's PlaceHolderView** to support swipe gestures for liking/disliking the news.
- Built the **Room Database** with LiveData & ViewModel to support local cache and offline model.
- Integrated **Retrofit** to pull the latest news data from a **RESTFUL endpoint** (newsapi.org).

Starlink: ReactJS based Starlink Trajectory Visualization **04/2020 – 06/2020**

- Designed and developed a visualization dashboard using **ReactJS** and **D3** to track satellites in real-time based on geo-location.
- Built location, altitude, and duration-based selector to refine satellite search.
- Animated selected satellite paths on a world map using D3 to improve the user-friendliness.
- Deployed the dashboard to **Amazon Amplify** for demonstration.

Around: a Cloud and React-based Social Network **03/2020 - 06/2020**
Frontend

- Built a geo-based social network web application with **ReactJS**.
- Advanced the authentication using token-based registration/login/logout flow with **React Router v4** and server-side user authentication with **JWT**.
- Implemented features for users to create and browse posts and support nearby search posts with **Ant Design**, **GeoLocation API**, and **Google Map API**.

Backend

- Developed a scalable web service in **Go** to handle posts and deployed to Google Cloud (**GKE**).
- Utilized **Elasticsearch** (deployed to **GCE**) to provide geo-location-based search functions such that users can search nearby posts within a distance (e.g. 200km).
- Used **Google Vision API** to provide a face detection model and integrate with the Go service.

Job+: AWS based Web Service Development – Job Recommendation **03/2020 - 05/2020**
Frontend:

- Developed an interactive web page using HTML/CSS/JavaScript, **AJAX** for job search and apply.
- Used favorite records to provide personalized position recommendation.

Backend:

- Created three Java servlets with **RESTful** APIs to handle HTTP requests and responses.
- Built **MySQL** database on **Amazon RDS** to store position data from GitHub API.
- Used MonkeyLearn API to extract keywords from description of positions.
- Designed **content-based algorithms** by extracting keywords from the description of user favorited jobs to implement job recommendation.
- Deployed to **Amazon EC2** for simplicity and scalability.