# Ryan Zheng

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**Bio:** A Computer Science master graduating in May, I hold a U.S. green card with legal work status. With a diverse project portfolio spanning web development, Android apps, and AI.

# **EDUCATION**

Syracuse University GPA:3.8/4 --Master of Computer Science
Harbin institution of technology --Bachelor of Civil Engineering Sep.2016 - Jun.2020

## **TECHNICAL SKILLS**

Programming Languages: Python, Java, C/C++, Kotlin, SQL, HTML/CSS, JavaScript, TypeScript

**Frontend:** ReactJs, Redux, ExpressJS, NodeJS, NextJs, Flask, TailwindCSS, JQuery, Bootstrap, Restful API, Postman **Backend:** MySQL, MongoDB, Firebase, Android Studio, NLTK, TensorFlow, PyTorch, Pandas, Git, Flutter, Sklearn, OpenCV, Matplotlib, Linux, XML, JSON, VS Code

#### **WORKING EXPERIENCE**

# Weiye Holdings (HK.1570)

Shenzhen, China

General Manager Assistant (Product manager)

Aug. 2020 - Apr.2021

- Spearheaded a smart parking system, facilitating parking spot reservation and management for users.
- Write a planned development node, set up a node reward and punishment system, and fully grasp the development process, so that the project launch time is advanced by 40%.
- By conducting pilots and customer surveys, then organizing development meetings to strategically coordinate development work with data analysis. Improved user satisfaction from 75% to 90%.

#### PROJECT EXPERIENCE

# Real Estate Ecommerce Web App (MongoDB, Express, React, Node)

- Implement JWT, Cookies, Firebase, redux and Google OAuth for secure and seamless user access.
- CRUD operations for property listings and user account using MongoDB and Firebase.
- Enhance the user experience with image uploads, property listing management, responsive web design.
- Implement cutting-edge search features to help users find what they're looking for.
  - Face Recognition Flask App (Python, Flask, OpenCV)
- Change face dataset to 'eigen faces', then using PCA model to find principal components of face image.
- Train **SVM** machine learning model to find the best parameter, then using pickle to save the model.
- Create RESTful API in **Flask** and incorporate trained SVM models and preprocessing steps, to provide accurate predictions for user-uploaded photos in real-time.

#### **Twitter Clone Android App (Kotlin, Firebase)**

- Allow users to make, delete, and search posts across various forums. Post including messages, locations, and photos, with **Firebase** for data storage.
- Implemented features for users to leave comments on posts, friend adding and online chatting functionalities, enabling users to connect and communicate with each other in real-time.
- Receive recommend post in home page and receive recommend in video page, with the ability to play videos directly within the app for a seamless user experience.

#### AI Chatbot (Transformer and LSTM model)

- Develop a **Python** implementation of a Transformer model using **NumPy**, featuring 6 encoder layers and 6 decoder layers for natural language processing tasks.
- Construct a user-friendly website using Flask framework, enabling interaction with the chatbot through both voice and text inputs. Compare to **LSTM** chatbot I used to build, **Transformer** chatbot superior in handling multilingual datasets and providing accurate response.

## Reddit Clone Web App (React, Redux, Node, Express, MongoDB)

- Enable users to create posts, engage in discussions through comments, and interact with posts by liking or disliking them. In profile, we can set our own social network links, skills, resume.
- Using MongoDB, JWT, Bcrypt, Express-validator to store and authenticate user information.
- Incorporate **CRUD** functionalities for managing user accounts, posts, and comments, along with a user-friendly dashboard for efficiently managing user information and posts.