Xinyu Zhang

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Objective: Software Engineer intern

EDUCATION

Northwestern University	Sep 2019 - Dec 2020
Master of Electrical Engineering	Evanston, IL, United States

- GPA: 4.0 / 4.0

Wuhan University	Sep 2015 - Jun 2019
Bachelor of Electronic Information	Wuhan, China

- GPA: 3.52 / 4.0 (Top 30%)

TECHNICAL SKILLS

Programming Languages: Java, Python, C/C++, SQL, HTML/CSS/JavaScript, MATLAB.
Framework/Tool: React, React Native, Firebase, Node.js, Express, MySQL, PostgreSQL,, Bootstrap, GitHub.

PROJECT EXPERIENCE

Chore Week   Apr 2020 - May 2020
Position: developer

- Deployed a web application for roommates to divide chores evenly amongst themselves in a scheduled manner.
- Built frontend pages based on **React** and **Material UI**.
- Used **Firebase Authentication Service** for managing users and **Firebase Realtime Database** to handle data.

Yelp Reviews Sentiment Analysis (Python)   Fab 2020 - Mar 2020
Position: Independent researcher

- Trained 44,000 text data from Yelp reviews and developed a sentiment analysis predictive model.
- Performed **NLP** using TF-IDF, stemming, lemmatization with n-grams modification to calculate word weight.
- Built a Logistic Regression model, naïve Bayes classifier and LSTM model for sentiment prediction and obtained an F1 score of 0.89.

Java Web Service Development – Face recognition   Jan 2020 - Fab 2020
Position: Independent researcher

- Designed and implemented an interactive web page for users to upload image and perform face recognition.
- Built frontend pages based on **React**, coded the pipeline of face recognition based on Clarifai API.
- Developed a **node.js** server with **RESTful** API to handle HTTP requests and responses.
- Built relational database with **PostgreSQL** to store user information.

Image Style Transfer (Python)   Nov 2019 - Dec 2019
Position: developer

- Built **CNN** models to convert photos of Northwestern campus into the artworks with 19th century painting style based on **TensorFlow.**
- Trained and tuned a **VGG19** model that has been pre-trained on ImageNet for style transferred.
- Customized the style loss and content loss so that they were minimized layer-wise.

Course Enrollment System Development   Nov 2019 - Nov 2019
Position: Independent developer

- Developed a database client based on **MySQL** with function of logging in, viewing transcripts, managing courses and changing personal details, along the lines of Northwestern Caesar's academic system.
- Implemented login interface, Student Menu screen, Transcript screen, Enroll and Withdraw screen, and Personal Details screen in **Python**.
- Created Triggers to add limitations on the system by showing alert information when operation cannot comfort to corresponding prerequisite.

GPS-based Bus Locating and Route Planning System   Sep 2016 - May 2017
Position: developer

- Implemented an **Android APP** to plan route for public transportation based on real-time location.
- Acquired the latitude and longitude of real-time location of the bus using Baidu Map API, showing map and current location on app.
- Realized the data transmission of positioning coordinates using **ServerSocket** and **Socket.**
- Applied circuit-planning algorithm provided by the Baidu Maps API, Floyd algorithm and the AHP (Analytic Hierarchy Process) to build two route-planning models.