Zexi Liu

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SUMMARY

Full-stack web/mobile application developer with solid CS fundamentals and 2+ years of experience. Enthusiastic about open source projects. Ex-Amazon intern, MSCS graduate in WashU. Seeking a full-time Software Engineer position. Expected to start in 2020 or 2021.

EDUCATION

Washington University in St. Louis, St. Louis, MO

Master of Science, Computer Science   *Sep.2018~Sep.2020*

Chongqing University, Chongqing, China

Bachelor of Science, Information Security   *Sep.2014~Jun.2018*

EXPERIENCE

Amazon

Software Development Internship   *Jun.2019~Sep.2019*
- Designed a Popular Highlight Aggregator for Kindle team to analyze data on **AWS** platform. Only for internal usage.
- Used **S3 bucket**, **DynamoDB** and **Elasticsearch** to store data. Used **AWS Lambda** and **API Gateway** to build **RESTful** API.
- Built a pipeline to inject data including 160,000 offline popular highlights and 2000 incremental popular highlights into the system.
- Used AWS **RDS** to store the label. And implemented APIs to update/search label function for each popular highlight.
- Used **HTML, CSS and JavaScript, AJAX** to design the frontend webpage.

Chinese Academy of Sciences   https://github.com/hellozexi/Facial-Recognation

Research Internship, Leader   *Jun.2017~Aug.2017*
- Used **MATLAB** to build a facial recommendation system. Group leader of 6 people under supervision of a Researcher.
- Chose 41 different faces in ORL face databases each attached with 5 training samples and 5 test samples.
- Reduced the dimension of 205 training samples through **PCA** (Principle Component Analysis).
- Used **SVM** to train the data after the dimension reduction and got the classification of these faces and tags of the test samples.
- Adjusted the parameters of **SVM** function and got the recognition accuracy of 90%

PROJECTS

Shopx   https://github.com/hellozexi/shopx

Founder   *May.2020~Aug.2020(Exp)*
- Built an p2p ecommerce system for students to trade second-hand items using **Spring Boot** and **React.js**.
- Implemented user authentication and authorization using **Spring Security** and **JWT**.
- Utilized **Hibernate** and **JPA** repository to maintain object-table mapping and returns result to application in form of Java objects.
- Implemented **RESTful APIs** for user to add/update/delete products, add/delete items to the cart and deal with sales order.
- Used Spring **WebSocket** to let buyer and reseller to communicate with each other when there's an order.
- Used **React.js** to build the front-end webpage. Used **Axios** to consume RESTful APIs.

Rate My Courses

iOS application   *Jun.2020~Jul.2020*
- Worked with 3 WashU students. Used **Swift** to build an iOS application similar to "rate my professor" but for courses in WashU.
- Implemented user authentication and store data into **Firebase**. Designed sign in/sign up storyboard in an appealing way.
- Designed multiple views and controllers for user to view useful information about the courses and students.
- Allow students to publish comments under the courses they have taken and professors to access their pages and update information.

iMovies

Java full-stack website   *Sep.2019~Nov.2019*
- Developed an interactive web page for users to search movies. (**HTML, CSS and JavaScript, AJAX**)
- Built relational databases (**MySQL**) to capture real business data from **TMDB API**.
- Designed the recommendation algorithm. Improved personalized business based on search history and favorite records.
- Created **Java servlets** with **RESTful APIs** and deployed on **Amazon EC2**.

Twitter Stream Analyzation Tool

Full-stack website   *Nov.2018~Dec.2018*
- Designed and implemented positive/negative word monitor with **Kafka** and **Spark** for popular Twitter hashtags. (60 Tweets/sec)
- Optimized the processing with **Flink** with better efficiency and suitability.
- Visualized the results with **Ajax** and **JavaScript** chart for 1% of all public Tweets.

SKILLS

Programming Languages: Java, Python, Swift, HTML, CSS, JavaScript, MATLAB, SQL, C++, C
Framework and tools: Spring boot, AWS, React.js, Git, Docker, RESTful APIs, Microsoft Office
Database: MySQL, DynamoDB, Elasticsearch, Firebase