Christopher Qin

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EDUCATION

New York University *New York, NY*
Master of Science, Computer Engineering *08/2018-12/2019*
University of Illinois at Urbana-Champaign *Urbana, IL*
Bachelor of Science, Materials Science and Engineering *08/2014-05/2018*

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Java, Python,
Front-End Development: React, Angular, HTML5, CSS3, Bootstrap4, React Hooks, Redux, Flask
Back-End Development: Node.js, Express.js, GraphQL, MongoDB, Redis RESTful API, RabbitMQ, Docker, Socket.io,
Database Tools: MySQL, Scikit-Learn, Pandas, TensorFlow, NLP

WORK EXPERIENCE

Easymay, Inc *New York, NY*
Software Engineer Intern *03/2019 – 08/2019*

- Generated new components for corporate web application in *React.js* and established a validation and authentication system for new user signup using *passport* and *validation* packages
- Researched and constructed database of admission and pre-requisite statistics, and applied multiple linear regression models to predict potential admission trends of admission offices
- Conducted daily maintenance and development of corporate customer-relationship management system in *React* and enhanced existing components' appearances for better user experiences

National Center for Supercomputing Applications *Urbana, IL*
Data Science Researcher *09/2017 – 05/2018*

- Interacted with Blue Waters Campus Cluster Supercomputer and constructed a database interface to store dielectric constants and longitudinal optical phonon frequencies
- Applied machine learning models such as *decision tree, random forest, lasso and ridge regression* from Python *Scikit-learn* packages to train the database
- Predicted over 40,000 materials and their phonon frequencies using *random forest* model and selected two materials with nearly zero calculation error

PROJECT

Pokemon App *09/2019 – 10/2019*

- Created a single web application to browse all pokemons allowing users to add their favorite pokemon, view pokemon by type, and search their own pokemon (TypeScript, Bootstrap, React)
- Established routing for each pokemon using React Router to view pokemon details, whose data is fetched from backend graphql server (React Router, React Apollo Client, GraphQL)
- Utilized GraphQL schema, queries and mutations to fetch data to accomplish pagination in frontend client

Real Time News Scraping and Recommendation System *04/2019 – 08/2019*

- Constructed a single-page web application for users to browse news (*React, Node.js, RPC Server, SOA, JWT, Sockit.io*) implementing click-event log processors collecting users' click logs
- Utilized a data pipeline to monitor, scrape and dedupe latest news (*MongoDB, Redis, RabbitMQ, TF-IDF*) from dynamic news API;
- Designed and built an offline training pipeline for news topic modeling (*TensorFlow, DNN, NLP*) and deployed an online classifying service for news topic modeling using the trained model.

Running Location Monitoring System *05/2019 – 07/2019*

- Developed a real-time running location monitoring system using *Java, Spring Boot, Spring Cloud, RabbitMQ, MongoDB and MySQL*
- Utilized *Microservices* architecture to decouple backend service such as running location persistence, distribution and update services
- Used *Docker* to containerize infrastructure and *Maven* to manage dependencies

Collaborative Online Judgement Systems *01/2019 – 03/2019*

- Designed and developed a single-page web application for coding problems (*Angular, Node.js, MongoDB*)
- Refactored and Improved system throughput by decoupling services using RESTful API and loading balancing by Nginx (*REST API, Nginx*)
- Implemented a web-based collaborative code editor which supports multiple user editing simultaneously (*Docker, Flask, ACE, Socket.io, Redis*)