Xiangyang Cui

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EDUCATION

University of Pennsylvania, School of Engineering and Applied Science May 2018
Major: Master of Science in Electrical Engineering **GPA:** 3.56/4.00

Shanghai University July 2015
Major: Bachelor of Engineering in Communication and Information Engineering **GPA:** 3.68/4.00

SKILLS

Web Programming: Java, Servlet, JSP, Spring, Spring MVC, MyBatis, Struts2, Hibernate
JavaScript, Node.js, Express.js, jQuery, AJAX, Angular, React
Python, Flask, SQL, MongoDB, HTML, Jade, CSS, Bootstrap, Git, GitHub, Jekyll, Liquid
Machine Learning: NumPy, Pandas, Spark, Scikit-learn, TensorFlow, CNN, RNN

PROJECTS

Library Management Web System Spring 2018

- Built enterprise-class application for Library System, using SSM (Spring, Spring MVC, and MyBatis) framework.
- Specialized two user roles: students and administrators. Students can query books, borrow and return books, report card loss and receive overdue alerts. Administrators can query, add, delete and update books and students.
- Stored all data in MySQL database. Queried data by MyBatis framework.
- Explored Session to require users to login first.
- Utilized JSP and Bootstrap for web pages.

Handwriting Recognition Web Application Spring 2018

Course: Big Data Analysis

- Constructed Python Web Program for handwriting recognition, using Python and Flask.
- Trained CNN model locally on MNIST dataset using TenserFlow and stored model with Savor class.
- Developed web application using light-weight Flask web framework and added CSS style via Bootstrap 3.
- Designed canvas object which captures users' input and sent to server. Retrieved CNN model and sent predict results to browsers.

Yelp Data Analysis Web Based on Node.js Spring 2017

Course: Database & Information Systems

- Constructed full stack web application using Node.js.
- Parsed yelp datasets (JSON files) to SQL tables. Scrawled demographic and zip code information from Internet. Stored all databases on Amazon Web Services (AWS).
- Computed relation between business popularities and their features, like geolocations or categories.
- Offered multiple searching methods for users to choose restaurants based on their demands.
- Utilized Google map API to show locations or to search address. Explored Google Visualization API to display results in pie charts, column charts or line charts. Embedded Google search box in webpages.
- Required users to sign up. Saved users' information in MongoDB (Mongoose NPM).

Employee Management Web System Fall 2016

Course: Programming Languages and Techniques

- Programmed Web application to add, delete, query and update employees' information in oracle database, using Java Servlet.
- Explored JSP and JSTL for generating dynamic webpages. Styled webpages by CSS.
- Utilized servlet configuration file, *web.xml*, to find relevant servlet when server got request from browser.
- Queried databases with DAOs. Bound results to Request objects, and forwarded them to JSP files by Request Dispatcher.

Chat Application with GUI Fall 2016

Course: Programming Languages and Techniques

- Designed Chat Application in Client/Server mode based on Socket, ServerSocket, AWT and Swing in Java.
- Implemented client application, for users to register, login, add friends, delete friends, chat and other operations.
- Constructed server that monitor clients' status and delete clients.
- Ensured users can send text messages, emoji, images and files through chat windows.
- Reserved users' information in MySQL database.

EMPLOYMENT

Teach Assistant for *Introduction to Networks and Protocols* Fall 2017

Employer: University of Pennsylvania

- Served as Teaching Assistant for *Introduction to Networks and Protocols*, which had 73 students, at University of Pennsylvania.
- Answered 117 questions on Piazza (Q&A web service) and graded homework and exams.
- Tutored students face-to-face in office hours (two hours per week) and in recitation classes.
- Understood protocols like IP, TCP, UDP, leaky bucket policy and so on.