Jihui Sheng

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EDUCATION

Northeastern University, Boston, MA — Expected 2024
Master of Science in *Computer Software Engineering*
Relevant Courses: Web Design/User Experience, Concepts of Object-Oriented Design, Data Mgt and Database Design, Program Structure & Algorithms, Data Sci Eng Methods, User Experience Design/Testing

Washington State University, Pullman, WA — August 2021
Bachelor of Science in *Computer Science*, Minor in *Mathematics*
Relevant Courses: Computer Security, Software Design Project I/II, Neural Network Design & Appl, Design & Analysis Algorithms, Programming Language Design, Artificial Intelligence, Intro to Data Mining, Intro to Machine Learning

TECHNICAL SKILLS

Languages: C, C ++, C#, Java, Python, JavaScript, Bootstrap, HTML/CSS, TypeScript, Tailwind
Frameworks: SpringBoot, .NET core, Django, PyTorch, JavaFx. Angular, React, Express.js
Tools and Systems: Linux, Git, Junit, Apache NetBeans IDE, Visual Studio, Visual Studio Code, IntelliJ IDEA, Eclipse, JupyterLab, Colab, AnaConda

PROJECTS

Task management Website – **Angular JS, Node JS, Express, JavaScript, MongoDB** — Jan-May / 2023
- Developed a responsive task management web application for users to create, publish, and track tasks.
- Designed an intuitive web front-end using Angular, JavaScript, and CSS.
- Created the REST server using Node JS with Express and MongoDB Atlas as database.
- Created CURD operations for adding/editing/deleting tasks.

Library Management System – **.NET Core, MySQL, React, JavaScript** — Sep-Dec / 2021
- Developed a distributed library management system using .NET Core Framework and SQL Server database.
- Leveraged RPC protocol for distributed system implementation and Swagger UI for API definitions.
- Wrote script for frontend with React and JavaScript.

Prediction of the Daily Number of COVID19 Cases – **PyTorch, Transformer, GBDT, RNN, Echart** — Jan-May / 2021
- Crawled part of useful data with Google Search API.
- Extracted effective information using TF_IDF algorithm and Apriori algorithm.
- Used Transformer model, GBDT model, and RNN model to train data and predict the results based on PyTorch framework, then compared the results.
- Implemented the seq2seq model based on the RNN model to achieve more accurate accuracy.
- Introduce Echart and JavaScript tools to realize the visualization of the model.

Design and Production of Spreadsheet – **C#, Visual Studio** — Sep-Dec / 2020
- Engineered a comprehensive spreadsheet application with support for arithmetic expression trees, formula calculations, and circular reference handling.
- Implemented robust features such as saving, loading, undoing, and redoing operations.

Instacart Market Basket Analysis – **Python, PyCharm** — Jan-May / 2020
- Developed a highly customized data association algorithm based on the Apriori algorithm to enhance the accuracy and efficiency of Instacart's market basket analysis.
- Designed and implemented a professional-grade product recommendation system using Python, aimed at providing users with personalized shopping suggestions to optimize the shopping experience and boost sales.