SHIJUN CAO

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EDUCATION

Northeastern University **Boston, MA**
Master of Science in Information System *Excepted Graduation: Dec 2021*
University of Illinois at Urbana-Champaign **Champaign-Urbana, IL**
Bachelor of Engineering in System Engineering and Design *Aug 2015 - Dec 2019*
Minor in Computer Science

SKILLS

- *Programming languages:* Java, Python, C/C++, C#, SQL, JavaScript, Angular, React, HTML
- *Technical skills:* Java Web App Development, Machine Learning, Data Analysis, User Interface Design.

EXPERIENCE

Northeastern University **Boston, MA**
Research Assistant *Jan 2020 – Feb 2020*

- Responsible for the customization of the latest Microsoft Azure Kinect sensor by implementing the SDK provided by Microsoft to meet demand of different companies.
- Increased Azure Kinect Sensor depth frame cycles by 30% to process a body frame by restructuring the algorithm

ChineseAll Digital Publishing Group Co. Ltd. **Shanghai, China**
Software Engineering Intern *May 2018 – Aug 2018*

- Reorganized and analyzed big data by Python Pandas, helping the company to visualize and customize the data.
- Designed and implemented a program to increase the data sampling speed by 50%, helping the company to fully utilized for future data analysis as well as for data request from other companies.

PROJECTS

Portfolio website (HTML, CSS)

- A brief summary of my work and experience. Access here: https://shijun-cao-site.herokuapp.com/index.html

Sorting Visualizer Web Application (JavaScript, React, 2020)

- Using React and JavaScript to build a Sorting Visualizer Web to animate the sorting process including merge sort, quick sort, bubble sort and so on. Helps people to better understand the sorting algorithm.
- Access here: https://caosj96-shenhua.github.io/Sorting-Visualizer/

Path Finding Visualizer Web Application (JavaScript, React, 2020)

- Web application that animate the process of a variety of searching algorithms such as Dijkstra's algorithms, Breath-first search and A* search algorithms. More algorithms are coming soon.
- Access here: https://caosj96-shenhua.github.io/Path-Finding-Visualizer/

Supply Chain Management Application (Java, 2020)

- Design a Java Application that focus on the construction and operations of a digital platform in shoes manufacturing domain, severing as a communication system for specialists and administrative operational personnel. This design included system design and implementation.
- Opens the possibility for many useful uses that are critical to the safety and well-being of shoe industry, as well as effectiveness in delivering quality service, and efficiencies to ensure that the services are affordable.

Global Warming Predicting Deep Learning Project (Python, 2020)

- Use LSTM, ARIMA model and other Artificial neural network algorithm to design a particular model to deep learn the global warming data and to predict the future temperature.
- Analyze past endanger species data with data visualization to predict the future impact of the global warming to them.

Cushman & Wakefield Intranet Gamification for Enhancement of Employee Participation (C#, Angular, 2019):

- Use Angular to design and development an internal gamification web application for Cushman & Wakefield. Include front end User Interface portal and REST-Backend with ASP.NET Core to connect to the database with all the employee information of Cushman Wakefield.
- Use Microsoft Azure as the hosting for the gamification engine, develop a universal engine to add gamification components to internally built apps to promote employee involvement and interaction.

Web Database Application (JavaScript, React, SQL, 2019):

- Design and develop a web application using JavaScript, HTML and React to analyzed parking tickets in the city of Los Angeles (Real time updated) by connecting database server
- Analyze over 1,000,000 records from database, getting most likely area to get a parking ticket to users by cross matching the longitude and altitude data of each citation with a map of Los Angeles.