MUYUAN ZHANG

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EDUCATION

Master of Science - Software Development   Aug 2022 - Dec 2023

University of Utah

Courses: Computer Systems (C/C++/Assembly)   Networks & Security (Java)   GPA: 4.00

Master of Engineering - Energy, Environmental & Chemical Engineering   Jan 2020 - May 2021

Washington University in St. Louis

Courses: Environmental Data Science (R/Python)   Object-Oriented Software Development (C++)   GPA: 3.58

Bachelor of Engineering - Chemical Engineering   Sep 2015 - July 2019

Tianjin University

Award: Honorable Mention, Mathematical Contest in Modeling (MATLAB)

EXPERIENCE

Lab Aide   Utah Nanofab Cleanroom   Sep 2022 - Present

- Developed an online questionnaire using Access, WordPress and HTML that can collect information for training requests and automatically send the data via email to the corresponding tool owners.

Internal Data Scientist   Amazon   May 2022 - Aug 2022

- Collaborated with vendor management to optimize data cleansing processes and to reduce manual processes within Amazon Fresh Japan node as a bilinguist in English and Japanese.

- Extracted data from websites by web crawling with Python, stored the data as data sets requiring no human interaction.

- Developed applications using Python Pandas to clean and format data sets involving product and vendor information, and to generate HTML emails to check in with customers.

- Saved 8 hours of labor per week by implementing each Python application and contributed to the digital transformation of RBS Japan FLEX team.

Data Analyst   ZhuoMan Technology Co., Ltd   Oct 2021 - May 2022

- Assessed the effectiveness of the campaign by linear regression analysis of marketing data using MySQL, Impala and R.

- Developed a Flask B/S application to upload and display Excel files on web pages with Python Jinja2.

- Collaborated to design and maintain a Clickhouse database, created composite indexes and optimized queries to improve query performance by 400%.

PROJECTS

KernelPack   Dec 2022 - Present

- Wrote unit tests with C++ Catch2 for KernelPack, a header-only library to solve Radial Basis Functions for PDEs on irregular domains and surfaces.

ChatRoom   Oct 2022 - Nov 2022

- Developed a Web & Android chat application using Kotlin Android with Android Studio.

- Built a multithreaded HTTP/Web socket local server with Java. Formatted messages in JSON.

- Implemented the client-side Web UI with JavaScript, HTML and CSS.

Simulated Filesystem   Mar 2021 - Apr 2021

- Created an abstract file system interface and implemented text/image file classes using C++.

- Implemented abstract factory pattern, visitor pattern, and proxy pattern to add functionality for password protected files.

- Designed the command pattern to interact with the filesystem implementation by interactively executing commands.

SKILLS

C++   Java   Python   R   MATLAB   SQL   JavaScript   HTML5   CSS   Git   Android

Mandarin/Native   Japanese/Fluent   English/Fluent