

## 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 bilingualist 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

- Researched user trends of fonts for Android cell phones to implement online advertisement strategies, increasing marketing exposure by 57% and market share from 0.9% to 4.2%.

- 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

*Collaborated with University of Utah Kahlert School of Computing*

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

- Created workflows to run tests using Jenkins with GitHub.

### ChatRoom

Oct 2022 - Nov 2022

- Built a Web & Android App with a multi-thread HTTP/Web Socket local server using Java.

- Implemented the client side with JavaScript, HTML, CSS and Kotlin Android.

### An Assessment of Tornado Intensity Rating

Jan 2021 - May 2021

- Assessed the transformation from F Scale to EF Scale for rating tornado intensity.

- Utilized R tidyverse to tidy, analyze and visualize the tornado data set from NOAA.

- Built the hypothesis testing model and used t-test to calculate the confidence level, and generated an R Markdown report.

## SKILLS

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

Mandarin/Native    Japanese/Fluent    English/Fluent