

# Sihui (Sharon) Lyu

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## EDUCATION

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**Northeastern University - Silicon Valley**, M.S. in Computer Science, GPA: 4.0/4.0 **08/2024 - Present**  
**Case Western Reserve University**, M.S. in Management, GPA: 3.60/4.0 **08/2019 - 01/2021**  
**Wuhan University of Technology**, B.S in Logistics Engineering, GPA: 3.54/4.0 **09/2015 - 06/2019**

## SKILLS

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**Programming Languages:** Java, Python, SQL, JavaScript/TypeScript, C/C++, HTML/CSS, R

**Tools and Frameworks:** ReactJS, Tailwind CSS, Git, Linux, Docker, Kafka, AWS (Lambda, RDS, CloudWatch)

## PROJECTS

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**Home Sweet Home** **10/2024 - Present**

- Built a full-stack web application to display rental and for-sale properties across the U.S., using React, Next.js, and Tailwind CSS for front-end development, and AWS RDS (MySQL) for backend data storage.
- Created automated data pipelines to fetch property details via RapidAPI and store them in a relational database using AWS Lambda, triggered by CloudWatch for scheduled runs, ensuring consistent and up-to-date property listings.
- Designed a responsive homepage showcasing property images, prices, and areas, leveraging Chakra-UI for intuitive and mobile-friendly layouts.
- Enhanced the app with advanced search features, including filters (e.g., room count, price range, and area), and implemented server-side rendering to optimize query performance and user experience.

## EXPERIENCE

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**Bettaway Supply Chain Service, South Plainfield, NJ** **09/2021 - 05/2024**

*Logistics Data Analyst*

- Developed a Python-based program to automate trailer usage and expense reports for B2B order fulfillment, streamlining data processing and improving efficiency by 90%.
- Built data pipelines to retrieve, clean and merge transportation data (e.g., location, cargo status) from the company's TMW relational database using SQL and Python pyodbc, ensuring data accuracy and reliability.
- Calculated trailer usage amount by integrating data across multiple tables using Python (Pandas, NumPy), enabling accurate and efficient payment collections from customers.
- Designed and visualized data using Matplotlib and Seaborn, creating heatmaps to analyze shipment patterns and helping stakeholders identify fleet usage trends to optimize supply chain solutions.
- Led the migration of the company's data analysis infrastructure to the cloud to enhance scalability and accessibility.
- Resolved code incompatibility issues during the transition from QlikView (on-premised system) to QlikSense (cloud system) by refactoring scripts and reconfiguring visualization components, ensuring functionality and data integrity.
- Designed and implemented complex join logic to integrate 5+ tables (e.g., stops, drivers, orders, and vehicles) using SQL, generating detailed profiles and financial costs for each order.
- Developed 50+ report pages and 200+ charts to support decision-making across four departments, updating KPIs and delivering actionable insights through advanced dashboards.

**Athersys, Cleveland, OH** **02/2021 - 08/2021**

*Supply Chain Intern*

- Developed machine learning models using multiple linear regression to predict raw material usage for MultiStem Therapy clinical trials, improving forecast accuracy and optimizing purchasing plans.
- Used ERP software to generate detailed purchasing plans and visualize the results, enabling stakeholders to make data-driven procurement decisions.