

# Xunwei Ye

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## EXPERIENCE

### Milk Weight Analyzer

Mar. 2020 - May. 2020

- Created a Java application using JavaFX for GUI that helped users to interact with the data
- Designed the program structure and drew the UML diagram
- Implemented a Hash Table for storing data
- Led weekly scrums to communicate with team members about system designs
- Developed and maintained project timelines
- Trained team members to delegate tasks

### Badger Bakery Application

Jan. 2023 - Feb. 2023

- Conducted a contextual inquiry to collect thirty people's user data
- Used affinity diagramming to construct categories of 150 post-it notes of user experience
- Designed annotated sketches of Badger Bakery web pages
- Used HTML, CSS, and JavaScript to implement the user interfaces
- Designed tasks with corresponding pass/fail criteria to test the implementation

### Page Replacement Algorithms Simulator

Oct 2021 - Dec 2021

- Implemented three kinds of page replacement algorithms, including FIFO, LRU, and Clock.
- Implemented a virtual RAM and hard drive simulating the paging process
- Handled wrong formatted input using the defensive programming approach
- Measured paging performance using statistical output report

### B+ Tree Index Manager

Jan. 2022 - Mar. 2022

- Implemented a B+ Tree index on top of the I/O Layer
- Stored pairs into the index to improve the performance of accessing elements in relations
- Determined pin page processes to design the indexing structure

### Iperf Simulator

Sep. 2022 - Oct. 2022

- Used Java sockets to implement Iperf tool
- Measured the performance of virtual networks in Mininet
- Wrote reports to explain the link characteristics and multiplexing impacts on network performances

### Staff Information Management System

Jan. 2018 - Feb. 2018

- Designed the system to count, process, and update the employees' information according to their job number
- Used Visio to draw the program UML diagram
- Implemented a Red-black tree as the internal data structure

## EDUCATION

### University of Wisconsin-Madison - B.S. in Computer Sciences, Data Science

Sep. 2019 - May. 2023, GPA: 3.5/4.0

Madison, WI

### Nanjing University of Aeronautics and Astronautics - Major in Software Engineering

Sep. 2017 - Jun. 2019, GPA: 4.2/5.0

Nanjing, China

## SKILLS & COURSES

### Programming Languages

- C++, C, Java, JavaScript, Python, R, HTML & CSS

### Technologies

- MySQL, Redis, MyBatis, Hibernate, React, Spring, Maven, Flask

### Tools

- Eclipse, IntelliJ IDEA, PyCharm, WebStorm, DataGrip, R Studio, Postman, Navicat, VS Code, CLion

### System Courses

- Databases, Networks, OS, Compiler, Programming Languages, UI, Big Data, Machine Organization

### Theory Courses

- Data Structures, Algorithms, AI, Data Modeling