Xunwei Ye

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EDUCATION

University of Wisconsin-Madison   Sep 2019 - Dec 2021

Computer Sciences Bachelor College of Letters & Science   Madison, WI

- GPA: 3.86/4.0; Relevant Coursework: Intro to Computer Engineering, Programming II, Machine Organization and Programming, Learn a Programming Language (C++), Programming III, Intro to Combinatorics, Intro to Operating Systems, Database Management Systems, Intro to Algorithms; In Progress: Software Engineering, Intro to Computer Networks

Nanjing University of Aeronautics and Astronautics   Sep 2017 - Jun 2019

Software Engineering Bachelor   Nanjing

- GPA: 4.3/5.0 (93/100, Top 0.65%); Relevant Coursework: Data Structure, Design and Analysis of Algorithm, C Language Programming, Fundamental Circuits and Electronic Technology, Project of C Language Programming, Project of C++ Language Programming, Project of Java Language Programming, Digital Circuits and Logical Design, Probability Theory and Mathematical Statistics, Discrete Mathematics, Linear Algebra, Java Language, Intro to Computer Science, Advanced Mathematics

PROJECT EXPERIENCES

B+ Tree Index Manager (C++)   Oct 2020 - Nov 2020

- The project implemented a B+ Tree index. The index was built directly on top of the I/O Layer. The implementation of the index improved performance when accessing elements in the relation, accomplished by storying <key, rid> pairs into the B+ Tree index. I contributed to the program design and most of the implementation.

Simulating Page Replacement Algorithms (C)   Nov 2020 - Dec 2020

The project evaluates several page replacement algorithms. The scheduling algorithm includes global FIFO page scheduling, global LRU scheduling, and a global Clock algorithm. The project uses real memory trace data from UNIX systems to test these algorithms. The project reads in the trace data and simulates the page replacement scheduling. It keeps track of various performance statistics and print these out at the completion of the trace file.

Shared Memory Producer/Consumer Program (C)   Nov 2020 - Dec 2020

- This program read a text file line by line, processed each line, and wrote to the standard output. The program was structured with four threads, including Reader, Munch1, Munch2, and a Writer thread. Munch1 and Munch2 threads were both functioning as string processing for each line. The threads communicated through shared memory using pthreads synchronization. I contributed to the synchronization module using semaphores with the pthreads library.

Make Command Implementation (C)   Oct 2020 - Nov 2020

- This program was a simple version of the make command. It could read a "makefile" and follow the specifications in the makefile as to which commands need to be executed. I contributed to handling the poorly formed input and the errors in "makefile" (Defensive programming.), and running the commands in "makefile" based on real-world make rules.

Milk Weight Analyzer (Java)   Apr 2020 - May 2020

- Created a JAVA application using JavaFX for GUI. The App could read milk weight data in csv format, store it into self-implemented hashtables, analyze it, produce reports by year, month, farm ID, and by date range in a pie chart format, and export report to another file in the table view. I contributed to the program design, the whole part of back-ending programming, and some parts of GUI programming.

Library Borrowing and Renewing Management System (C++)   May 2018 - May 2018

- The system was based on Qt. The system was designed to manage the borrowing and renewing information of the library with a user interface. I worked alone.

Staff Information Management System (C)   Jan 2018 - Feb 2018

- The program could count, process, and update the employees' information according to their job number, department, or position, and the enterprise leaders can also analyze the employees. The internal data structure was a Red-Black tree. I worked alone.

AWARDS

Name on Dean's List for every semester at UW-Madison	2019 Fall, 2020 Spring
Special Scholarship for Innovation, Pioneer and Excellence at NUAA	2018 Fall
The 1st Prize Scholarship at NUAA	2017 Fall, 2018 Spring
Pacemaker to Merit Student at NUAA	2019 Spring

SPECIAL SKILLS

- **Programming Languages:** C, C++, Java, Python, Julia, Javascript
- **Languages:** English, Mandarin(Native)
- **Interests:** Guzheng (a Chinese traditional instrument), Guitar, Soccer, Swimming, Road Cycling