

Jiawei Hao

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Education

University of Michigan College of Literature, Art, and Science

Ann Arbor, MI

Bachelor of Science in Computer Science, Data Science, minor in Math

Expected in 05/2024

- GPA: 3.8/4.0
- Coursework: Operating Systems, Software Engineering, Web System, Computer Network, Database Management, Machine Learning, Algorithm and Data Structure, Computer Systems, Computer Security

Work Experience

Walmart Global Tech

Sunnyvale, CA

Software Engineer Intern

05/2023 – 08/2023

- Designed and executed multiple high-performance Golang APIs for data retrieval from the database. Leveraged caching mechanisms to reduce data retrieval time by 30%, resulting in faster graph generation on the frontend.
- Integrated the frontend UI using React Bootstrap framework. Improved code quality by making codes modular, classless, and reduced total line of codes by 70%.

Walmart Global Tech

Reston, VA

Software Engineer Intern

05/2022 – 08/2022

- Implemented several Java API to capture hardware data for Walmart stores. Logged hardware data onto Splunk dashboard to monitor device malfunctions.
- Identified and reported errors, enhancing system reliability via Splunk Dashboard, resulting in loss prevention.

University of Michigan Stats Department

Ann Arbor, MI

Research Assistant under Dr. Octavio Mesner

05/2021 – 08/2021

- Studied SIR disease model and graph theory for modeling. Built stochastic block model using Rstudio and igraph package, simulating information spread with seed nodes and random propagation.

Project

Latexify, Google Open-Source Project | Python

- Purposed improvements for Latex operator transformation. Added new AST transformers to support more Latex visualization; implemented using **AST** library.
- Enhanced code quality through rigorous unit testing and discussions with the project maintainer.

Pager | C++

- Designed and implemented a **memory manager pager** for the operating system kernel, optimizing virtual address space management and resource allocation. Collaborated with application processes through system calls and **fault handling** to provide efficient memory management and address space abstraction.

Thread Library | C++

- Implemented a fully functional **thread library** using C++ that works on multiple CPUs, including classes such as thread, mutex, condition variable, semaphore, latch, and barrier. The scheduling policy is FIFO.

Sentiment Classification | Python

- Used NumPy and Pandas library to train a linear classifier with linear kernel **SVM** and optimized validation accuracy through the application of feature engineering methods including stemming, N-grams, and nltk.

Programming Skills

Programming Languages:

Golang, C++, C, Python, SQL, Shell, Bash

Framework & API:

Flask, Jinja2, REST API, React JS, Node JS

Tools & Others:

Git, Jira, AWS, Docker, Linux, Ubuntu, Agile methodologies