

# MINGCHAO ZHANG

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## EDUCATION

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### Brown University

*M.S. in Computer Science*

August 2022 - Present

### University of Illinois at Urbana-Champaign

*B.S. in Mathematics and Computer Science with Highest Honors*

May 2020

## EXPERIENCE

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### Bloomberg

*Software Engineer*

July 2020 - July 2022

*New York City, NY*

- Involved in designing and implementing a highly-distributed market data platform composed of micro-services which handled a couple million market data querying requests daily
- Applied various graph algorithms and efficient data structures to enable clients to quickly and flexibly access different types of market data while minimizing processing loads of the micro-services
- Worked on a distributed system for calculating and optimizing the resource prediction for 1000+ users where raw data were pipelined through Spark and Kafka onto the cloud for heavy computing during the optimization

### Cohesity

*Software Engineering Intern*

June 2019 - August 2019

*San Jose, CA*

- Developed a Python tool that measured how well different indices could perform at retrieving relevant documents, which were generated by various document summarization methods
- Implemented a Java plugin for Elasticsearch to enable customized document ranking given a customized mapping from indices to documents, which allowed non-default indices to be used in practice
- Integrated the best indexing schema into a production application which reduced the index storage size by 45%

## PROJECTS

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### Hourglass

*Chrome Extension, React, IndexedDB*

- Developed a chrome web extension that kept track of users' browsing activities and patterns, which showed up whenever a tab was opened to remind users of time spent on social media and frequently visited websites
- Implemented all backend functions in IndexedDB, a local database, and integrated it with React to eliminate the need of connections to remote servers and the need of server maintainance
- Built advanced functionalities such as blacklists to block websites that users did not want to be tracked

### Show me the Carb Fax

*jQuery, PHP, SQL*

- Created a web application that could suggest and adjust meal plans based on users' health goals in real time
- Implemented advanced SQL functions such as automatic deletions of food items on different triggers

## SKILLS & RELEVANT COURSEWORK

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### Skills - Proficient

Python, C/C++

### Skills - Familiar

HTML/CSS/Javascript/React, Java, Go, SQL

Scheme, Unix, Git, Docker, Elasticsearch

### Relevant Coursework

Data Structures, Algorithms, Operating Systems, Databases

Web Programming, Machine Learning, Computer Architecture