

MINGCHAO ZHANG

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EDUCATION

University of Illinois at Urbana-Champaign

May 2020

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

GPA: 3.83

EXPERIENCE

Cohesity

June 2019 - August 2019

Software Engineering Intern

San Jose, CA

- Developed a tool in Python that measured how well indices performed at retrieving relevant documents, which were generated by different document summarization techniques
- Implemented a Java plugin for Elasticsearch to enable customized document ranking given a customized document mapping
- Integrated the index schema into a production app which reduced the index storage size by 45%

UIUC Math and CS Departments

January 2018 - December 2018

Undergraduate Teaching Assistant for Discrete Math

Urbana, IL

- Co-taught 60-minute discussion sections weekly for 20 students with carefully selected practice questions that effectively prepared students for exams
- Hosted office hours and led exam review sessions, which received overwhelmingly positive reviews from students

PROJECTS

Hourglass

Chrome Extension, React, IndexedDB

- Developed a chrome extension that tracked users' browsing activities and patterns
- Implemented functions in React to read and render data from IndexedDB
- Designed and built advanced functionalities such as website blacklists

Show me the Carb Fax

jQuery, PHP, SQL

- Created a web application that suggested and displayed food items in real-time, using jQuery and PHP
- Implemented advanced database functionalities in SQL such as automatic deletions of certain food items

Scheme Interpreter

Python, Scheme

- Understood how functional programming languages like Scheme work in terms of calling conventions and stack frames in recursive calls
- Implemented a Scheme interpreter in Python with advanced features such as Lambda Procedure, Mu Procedure, and Macro Procedure
- Able to use the interpreter to write real-world applications such as RSA encryption

SKILLS & RELEVANT COURSEWORK

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