

# Youssef Abdulle

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## EDUCATION

### University of Minnesota — Twin Cities

May 2026

*Bachelor of Science in Computer Science*

GPA: 3.60

**Relevant Coursework:** Data Structures and Algorithms, Software Engineering, Operating Systems, Software Design and Development, Computer Architecture, Internet Programming, Databases

### Honors & Awards

Fall 2023

*College of Science & Engineering Dean's List Recipient*

### Leadership & Professional Development

Fall 2023

National Society of Black Engineers, Management Leadership for Tomorrow (MLT), Code2040

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, C/C++, JavaScript, HTML/CSS, OCaml, Assembly

**Developer Tools:** React, Next.js, Flask, Node.js, VS Code, IntelliJ, Git/Github, Eclipse

## WORK EXPERIENCE

### Undergraduate Teaching Assistant

Aug 2024 – Present

University of Minnesota

Minneapolis, MN

- Instructed cohorts of 250+ students weekly in introductory Python concepts and systematically tracked student improvements in grading over the semester.
- Coordinated 3 weekly laboratory meetings, implementing discussion-based learning strategies that increased student performance in lab assignments by 30% over the semester
- Led peer review workshops for cohorts of 30 students weekly, boosting collaboration and achieving a 90% satisfaction rate, as highlighted in anonymous surveys, which increased engagement in subsequent sessions

## PROJECTS

### AI Customer Support Chatbot | JavaScript, Next.js, React, Meta Llama API

Github

- Led frontend development for a 4-person team, creating an AI customer support chatbot with Next.js and React, overcoming challenges with integrating complex UI components to ensure a modern and accessible user interface.
- Integrated Meta Llama 3.1 open-access API to enable context-aware responses, overcoming challenges related to handling diverse user queries and improving response accuracy by 20%.
- Validated the chatbot's performance through thorough testing and debugging, resulting in a 30% improvement in response accuracy and overall reliability.

### Internship Aggregator Tool | Python, BeautifulSoup, pandas, Discord API

Github

- Engineered a web scraping program using BeautifulSoup to extract and organize dozens of internship postings daily, implementing robust error handling to manage adaptive content updates and frequent site changes.
- Developed a Discord bot integrated with the program to provide hourly updates on new postings and offer interactive commands for filtering opportunities, achieving 100 student users, resulting in 20 interviews
- Utilized pandas to design a structured table format for the extracted data, enhancing accessibility for over 100 students and reducing their average search time for internship opportunities by 40%.

### Spell Checker | C

Github

- Developed a C-based Spell Checker, utilizing a hash table data structure and leveraging variable memory management and file I/O to simplify program compilation.
- Optimized memory efficiency with the usage of malloc and free combined with a Makefile for efficient code compilation and automated testing, ensuring functionality and correctness of the spell checker.
- Implemented a command-line interface for dictionary manipulation, spell checking text files, and supporting optional command line arguments.