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

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, Inroads

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 weekly office hours, achieving a 90% satisfaction rate in anonymous surveys, resulting an increase in student attendance at subsequent sessions

Projects

AI Interview Assistant Chatbot | JavaScript, Next.js, React, Meta Llama API Github

- Engineered front-end interface for a 4-person team, creating an AI interview assistant chatbot with Next.js and React, 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.

Series Recommendation Engine | Python, Scikit-learn, Pandas, Numpy Github

- Designed an series recommendation system processing 10,000+ titles, utilizing cosine similarity to recommend shows with over 80% accuracy based on user likes and viewing history
- Developed efficient search functionality filtering 100,000+ user ratings, improving recommendation accuracy by 30% through optimizing similarity algorithms.
- Utilized pandas and Numpy to preprocess and organize the dataset, reducing data processing time by 50% and ensuring the system could handle large volumes of data and deliver recommendations in under 2 seconds.

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.