

Uzair Mohammed

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EDUCATION

Michigan State University - Honors College, College of Engineering
B.S. in Computational Data Science. Minor in Mathematics

Grad: Apr. 2025

Relevant Coursework: Machine Learning, Deep Learning, Data Analysis & Visualization, Software Engineering, Data Structures & Algorithms, Database Systems, Scientific Programming, Linear Algebra, Differential Equations, Physics, Economics, Linguistics.

EXPERIENCE

Workshop Director - MSU Artificial Intelligence Club

Sep. 2022 – Present

- Lead a team of organizers to plan and execute weekly meetings at MSU's premier computer science student organization.
- Provide over 1000 students with hands-on learning in in computer vision, natural language processing, and generative AI using Scikit-Learn, PyTorch, OpenCV, and other technologies. Doubled member engagement over 3 semesters.
- Establish timelines, assess content quality, develop connections, and implement feedback from advisors and students.

Mathematics Researcher - University Undergraduate Research and Arts Forum

Apr. 2022

- Analyzed properties of a novel combinatorial game using alpha-beta pruning, and benchmarked complexity against similar games, using SciPy and SageMath. Presented findings and published a video at UURAF to >100 researchers and students.

PROJECTS & AWARDS

Awarded Second Place - Terminal AI - MHacks 16

Nov. 2023

- Collaborated with a team of 4 to develop a Python library and CLI that captures errors, analyzes a codebase, and gives intelligent suggestions in the terminal using GPT. Awarded "best developer tool" in the MHacks 2023 hackathon

Awarded Global Nominee - Open Source Marketplace - NASA Space Apps Challenge

Oct. 2023

- Developed an app with a team of 5 to network contributors and open science repositories based on skills and interests.
- Trained a recommendation algorithm with link prediction and OpenAI embeddings to connect hundreds of users and repos.

Awarded Best Use of AI - Live Transcription Glasses - HackUlowa 2023

Sep. 2023

- Developed the back-end of a full stack speech recognition device with a 4-person team to improve accessibility.
- Integrated Cohere and Google Cloud Speech to Text APIs to display and summarize live conversations to one's field of view.

Awarded First Place - CTF Cybersecurity Challenge - Hack Dearborn 2

Oct. 2023

MSU Quantitative Finance Club - Member

Sep. 2023 - present

- Actively engage in weekly meetings to learn about quant development and research from industry professionals.

AI Resume Matcher - NLP Project

Jan. 2023

- Designed a semantic search pipeline to match resumes to job postings using spaCy and the Cohere API. Analyzed over 50 skills. Prototyped a Flask web app with a team of 4 for the SpartaHack 8 Hackathon.

Imagine Software at MSU - Youlearn.ai

Sep. 2023 - Dec. 2023

- Collaborate with a team of 6 to develop a personalized, NLP-driven education service using agile practices, reaching >1000 users.
- Deployed a vector store and retrieval augmented generation to create an AI tutor based on scraped online content.

Smart Attendance - Computer Vision Project

Sep. 2021 - Jan. 2022

- Developed a web app with a team of 12 to automate taking attendance with a camera.
- Applied a convolutional neural network in Dlib to recognize and compare faces, achieving 99.4% accuracy.

Skill Ranking Algorithm - Independent Statistics Project

Jan. 2021 - Dec. 2022

- Invented a Bayesian model to match players and estimate skill for competitive games, serving >200 users.
- Configured a CI/CD pipeline with GitHub Actions and Docker to deploy an app to AWS EC2, reducing build time and errors.

TECHNICAL SKILLS

Languages & Technologies: Java, Python (PyTorch, Scikit-Learn, spaCy, Pandas), C++, R, Typescript, JavaScript, MATLAB, Git, SQL (Postgres, SQLite), GraphQL, Vector databases, Hugging Face, MongoDB, Docker, AWS, Azure, Google Cloud Platform, Maple, SageMath.

HONORS

Dean's List (2021-2023) National Merit Semifinalist (2021) MSU Special Merit Scholarship (2021) Eagle Scout (2018)