

Mehboob Hussain

Email: Mehboobh736@gmail.com Phone: (720)656-6415 LinkedIn: <https://www.linkedin.com/in/mehboob-hussain-59845a344/>

Education

University Of Denver

Expected Graduation: 2026

- Bachelor of Science in Computer Science
- Minor in Mathematics
- Minor in MiddleEastern Studies

Technical Skills

- Languages: Python, Java, C++, C, C#, JavaScript, SQL
 - Frameworks & Libraries: React, .NET, Node.js, Flask, Streamlit
 - Cloud & DevOps: AWS (Lambda, API Gateway, CloudWatch), Git, Linux
 - Tools & Platforms: GitHub, VS Code, Postman, Docker, Arduino, Eclipse
 - Databases: PostgreSQL, MongoDB
 - ML/AI: Sentiment Analysis, GPT-3.5 (OpenAI API)
-

Experience

Full Stack Software Engineering Intern - MedGeo Ventures | Summer 2025

- Built backend features using JavaScript and REST APIs to streamline job-matching and employer analytics, reducing data-fetch time by ~30%.
- Integrated a dropdown filtering module into the frontend UI, improving search accuracy and reducing user navigation steps by ~25%.
- Contributed to 4+ agile sprints, using Git-based workflows to deliver production-ready features under tight deadlines.

Embedded Systems Developer - Independent Project | Spring 2025

- Developed an Arduino-based tripwire system to detect motion and control door access automatically.
- Implemented a JSON-based serial protocol for configuring thresholds, status reporting, and error handling.
- Integrated real-time response logic with modular hardware-software components for reliability and expansion.

TalkBuddy | 2025-Present

- Developed an accessible communication app using React, enabling non-verbal children to express needs through icon-based input and text-to-speech audio playback.
- Deployed to test users and iterated based on feedback, improving communication speed and reducing mis-taps by ~25% through UI and accessibility refinements.
- Designed intuitive navigation using category-based visual groupings, with a strong focus on user-centered design, color contrast, and sensory accessibility.

Teaching Assistant | Spring 2024

- Supported students with Java and Python coursework, clarifying OOP principles and algorithm design.
- Led one-on-one sessions to improve understanding of debugging and problem-solving techniques.
- Improved student performance through structured guidance and one-on-one academic support.

Tutor | 2023-2024

- Provided individualized tutoring in Data Structures, Algorithms, and Object-Oriented Programming, simplifying complex topics into easy lessons.
 - Led one-on-one and group sessions to enhance problem-solving strategies and coding fundamentals.
 - Helped students strengthen debugging skills and build confidence through structured, example-driven guidance.
-

Projects

AWS Serverless File Upload API

- Developed a serverless REST API with AWS Lambda and API Gateway to handle secure file uploads.
- Stored file metadata in PostgreSQL for structured querying and efficient retrieval.
- Set up AWS CloudWatch for real-time logging and easier debugging during development.

MoodML - AI-Powered Mental Health Journal

- Developed a full-stack journaling app enabling users to log entries, track moods, and view history, with secure authentication and Supabase cloud storage
- Integrated OpenAI's GPT-3.5 API to analyze journal text and classify emotional sentiment as Positive, Neutral, or Negative in real time
- Combined user-selected mood with ML-driven sentiment analysis to enhance emotional awareness, demonstrating applied machine learning in a wellness context

Smart Budget Tracker

- Built an interactive budgeting tool using Streamlit and Pandas to track income and expenses from CSV files.
 - Generated real-time summaries and visualized category trends with Plotly charts.
 - Designed a clean UI with filters for date, type, and category to simplify personal finance analysis.
-

Honors & Awards

Thani - Mobile Application for Student Networking (DU Hackathon) | Spring 2025

- Collaborated with a 7-member team to design and build a mobile app that connects students across universities through event sharing, location-based posts, and social forums.
- Led feature testing and UX design efforts to ensure smooth navigation and real-time updates in a team of 7.
- Placed in the top 3 out of teams from multiple Colorado universities, built with React Native, Python, Node.js, Firebase, SQL, Docker, and Expo Go.