

Hassaan Zafar

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BSCS Undergrad | NED'27

6th SEM, CGPA: 3.79

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Computer Science undergrad with practical experience building AI-powered systems including RAG semantic search pipelines, intelligent chatbots, inventory management portal, notes management and university internship portal. Skilled in MERN stack and LLM integration, with a focus on combining web technologies and machine learning to deliver real-world solutions. Actively seeking opportunities in AI engineering and AI-powered web development.

Education

Bachelor's degree in Computer Science

NED University of Engineering and Technology

October 2023 - June 2027

Fsc. in Pre-Engineering

Army Public College

June 2021 - June 2023

Experience

MERN Fullstack Developer Intern | 10pearls | Remote

Dec 2025 - Feb 2026

Worked on a full-stack notes application built with the MERN stack (MongoDB, Express, React, Node.js), featuring secure user authentication, JWT-based authorization, email verification with OTP, and note management capabilities. Also used different testing frameworks and SonarQube for enhanced performance.

Web Development Intern | NED University Of Engineering & Technology | Onsite

March 2025 - April 2025

Developed a responsive inventory management portal for NED University of Engineering & Technology using React and PostgreSQL, delivering a modern and user-friendly interface. Gained practical experience in component-based frontend and backend development and real-world project workflows.

Skills

- **Languages:** Python, JavaScript, C, C++, Apex, SQL, HTML, CSS
- **Frameworks & Tools:** React, Tailwind CSS, Node.js, Express.js, FAISS, Socket.io, Streamlit, Git, Qt, SonarQube, Mocha/Chai, Jest
- **Databases:** MongoDB, MySQL, PostgreSQL
- **AI/ML & NLP:** LLM Integration, HuggingFace Transformers (BERT), PyTorch, Scikit-learn, NLTK, spaCy, Vector Embeddings, Semantic Search, RAG, TF-IDF, Word2Vec, VADER Sentiment Analysis
- **Concepts:** Data Structures & Algorithms, OOP, REST API Design, JWT Authentication, Real-Time Systems (WebSocket), Database Management, Computer Networks, Blockchain

Projects

- **CampusCollab** | MERN, GEMINI API, SonarQube, Socket.io
A scalable university project management system using MERN implementing JWT-based authentication. Designed and developed 27+ RESTful API endpoints with role-based authorization, skill-matching algorithm for smart recommendations, and comprehensive application workflow for student-professor collaboration.
- **Notes Management System** | MERN, Mocha/Chai, SonarQube
Full-stack notes application built with the MERN stack (MongoDB, Express, React, Node.js), featuring secure user authentication, JWT-based authorization, email verification with OTP, and note management capabilities. Also used different testing frameworks and SonarQube for enhanced performance.
- **PDF Semantic Search** | Python, FAISS, RAG, HuggingFace
End-to-end semantic search pipeline for PDF documents using vector embeddings, FAISS-based similarity search, and Retrieval-Augmented Generation. Supports document ingestion, text chunking, and context-aware answer generation.
- **AI MEETING TRACKER** | MERN, Gemini API, Redis, Socket.io
A web-based application that processes meeting notes to automatically identify action items, assign tasks, and track completion progress, with analytical insights to detect potential deadline risks.