Mohammed Maaz

📞 +91-7676014527 ✉ maazkhaleel17@gmail.com 🔗 linkedin.com/in/mohammed-maaz-673281243
🐙 github.com/Mohammedmaaz1786 🌐 portfolio-sigma-one-24.vercel.app

CAREER OBJECTIVE

Motivated Computer Science student specializing in AI & ML with strong foundations in data structures, algorithms, and scalable software development. Passionate about building intelligent and efficient systems, solving real-world problems through data-driven engineering, and learning advanced industry practices.

SKILLS

Technical Skills

- **Programming Languages:** Python, Java, JavaScript
- **Frameworks & Libraries:** TensorFlow, Keras, PyTorch (learning), OpenCV, NLTK, Node.js, Express.js, React.js, FastAPI, Selenium
- **AI/ML & Deep Learning:** 3D CNNs, Transfer Learning, NLP, Computer Vision, Generative AI, LangChain, Model Evaluation & Preprocessing
- **Tools & Technologies:** Git, GitHub, VS Code, Jupyter, HTML, CSS, Postman (API Testing), Linux Basics, Bash (learning), Docker Fundamentals (learning)
- **Databases:** MySQL, MongoDB, FAISS (Vector Search)
- **Cloud & DevOps Exposure:** Render, Vercel, AWS Fundamentals (EC2, S3, IAM), Kubernetes Basics (learning)
- **Data Structures & Algorithms:** Strong problem-solving using Java & Python

Soft Skills

- Analytical problem-solving, teamwork, adaptability, and time management

EDUCATION

- **B.Tech in Computer Science Engineering (AIML)** *2022–Present (Expected 2026)*
  REVA University, Bengaluru **CGPA: 9.35**
- **XII (2nd PUC)** *2022*
  Presidency PU College, Bengaluru **93.33%**
- **X (SSLC)** *2020*
  The Best High School, Bengaluru **93.92%**

PROJECTS

Road Rage Detection using Deep Learning and Computer Vision 🐙 *Dec 2024*

Technologies: Python, TensorFlow/Keras, OpenCV, 3D CNN, Transfer Learning

- Developed a real-time road rage detection system using 3D CNNs with 5-frame temporal smoothing, achieving 94% accuracy on a custom Indian dataset.
- Reduced false positives by 15% through transfer learning, optimized for Bangalore traffic conditions.
- Deployed for traffic monitoring and insurance claim verification, scalable for multi-class aggression detection.

AI-powered LinkedIn Automation Tool 🐙 *May 2025*

Technologies: Python, Selenium, Gemini API, NLP, HTML Parsing, Tkinter

- Developed a Tkinter-based automation system for LinkedIn that enables personalized connection requests, messaging, and auto-posting with a user-friendly interface.
- Employs Gemini-powered NLP for intelligent, context-aware messaging and hashtag generation.
- Incorporates dynamic scrolling, human-like interaction delays, and profile-based targeting to ensure compliance and improve engagement.
- Features a modular, real-time execution system to streamline user workflows and facilitate future extensions like resume assistance, and alumni messaging.

Intelligent Policy Document Query System (HackRx 2025) 🐙 *Aug 2025*

Technologies: Python, FastAPI, FAISS, Azure Document Intelligence, PyPDF2, Sentence Transformers, Gemini API

- Built a state-of-the-art intelligent query system for the HackRx competition, enabling accurate extraction and analysis of insurance policy documents (16+ pages).
- Implemented a hybrid document processing pipeline with PyPDF2 primary extraction and Azure OCR backup, improving coverage from 12.5% to 100%.
- Integrated FAISS vector search with Cross-Encoder reranking, achieving 60% better context relevance for policy specific queries.

- Developed a secure FastAPI backend with Bearer token authentication, async processing, and scalable architecture for production deployment.

EduQueryAI – RAG-Based Learning Assistant 🌐 *Dec 2025*
Technologies: Node.js, Express, React, MongoDB, Azure Cosmos DB, Azure OpenAI Embeddings, Google Gemini API, JWT
- Designed and implemented a full RAG pipeline combining Azure OpenAI embeddings, Cosmos DB vector search, and Gemini Flash for accurate, context-aware learning assistance.
- Built a scalable document processing engine with PDF/DOCX extraction, semantic chunking, and embedding generation using *text-embedding-3-small* for high-precision retrieval.
- Engineered a production-ready multi-service backend architecture integrating MongoDB, Blob Storage, Cosmos DB, and Gemini APIs with secure JWT authentication.
- Developed adaptive learning features including AI-generated quizzes, auto-grading, and weak-concept analysis using structured RAG-based context extraction.
- Implemented AI-driven study session analytics that aggregate chats, quiz attempts, and errors to generate personalized reflections and revision guidance.

Audit Lens 🔘 *Under Development*
Technologies: Next.js, FastAPI, Python, TypeScript, Tailwind CSS, Google Gemini AI, scikit-learn, OpenCV
- Developing a full-stack intelligent auditing system for invoice processing and fraud detection.
- Integrates AI-powered OCR (using Tesseract + Gemini 2.0 Flash) for multi-language document parsing (English, Spanish, French).
- Implements ML-based fraud detection using statistical anomaly detection, duplicate checks, and vendor risk scoring.
- Designed a Next.js dashboard with sorting, filtering, and analytics for real-time monitoring.
- Focused on security through API key management, input validation, and restricted CORS policies.

Wanderlust – Hotel/Accommodation Booking Platform (Airbnb Clone) 🔘 *Under Development*
Technologies: MERN Stack, Mapbox API, Cloudinary, JWT Authentication
- Developing a full-stack accommodation booking system where users can register, log in, and browse available hotels.
- Implemented authentication (login/logout) using JWT and integrated Cloudinary for image management.
- Displaying hotel listings with details and images, along with interactive maps using Mapbox API.
- Currently extending features for location-based search, booking workflow, and host-side management.

AI-Enabled Campus Event Management Platform 🌐 *Dec 2025*
React.js, Tailwind CSS, Framer Motion, Node.js, Express.js, MongoDB, JWT, REST APIs, Gemini AI, QR Code, Cloud Deployment (Render/Vercel)
- Designed and developed a role-based campus event management platform enabling students, organizers, and faculty to manage the complete event lifecycle within a unified system.
- Implemented AI-assisted event creation and personalization, including smart title generation, theme suggestions, and personalized event recommendations for students.
- Built separate portals for students, organizers, and faculty with secure authentication, role-based access control, and protected routes using JWT.
- Automated event workflows such as registrations, notifications, approvals, and attendance tracking using QR-based verification.
- Developed a modern, workspace-style frontend with subtle animations, light/dark themes, and responsive layouts using React, Tailwind CSS, and Framer Motion.
- Deployed the full-stack application with production-ready environment configuration, CORS handling, and scalable cloud hosting.

PUBLICATIONS

"Road Rage Detection System using Deep Learning and Computer Vision." *IEEE International Conference on Intelligent Computing and Control Systems (ICICACS), 2025.*
Published in IEEE Xplore: https://ieeexplore.ieee.org/document/10968328

CERTIFICATIONS

Data Structures and Algorithms using Java *NPTEL, Jul–Oct 2024*
Completed a 12-week course (score: 72%) covering arrays, trees, graphs, and algorithmic problem-solving.
Kubernetes & Docker Fundamentals *Udemy, Ongoing*
4-hour course on Docker basics, Kubernetes orchestration, and hands-on labs.

SQL using MySQL and DB Design *Scaler, Apr 2024*
Covered SQL queries, joins, subqueries, aggregation, and schema design.
MongoDB Developer Course *Infosys Springboard, Dec 2024*
Learned CRUD, indexing, aggregation, and NoSQL data modeling.
Full Stack Web Development (Sigma 5.0) *Apna College, Ongoing*
Pursuing in-depth training in the MERN stack (MongoDB, Express, React, Node.js) and data structures using Java, covering frontend development, backend APIs, database integration, and algorithmic problem-solving.

INTERESTS

- Strategic Performer: Passionate about activities like cricket and gaming that enhance teamwork, discipline, and real-time decision-making under pressure.
- Creative Problem-Solver: Apply innovative approaches to both personal and professional challenges, often leveraging AI tools to streamline tasks and enhance efficiency.
- AI-Driven Innovator: Enthusiastic about harnessing AI technologies to build intelligent systems that automate processes, improve productivity, and solve real-world problems.