

MEHNAZ BIBI

Pakistan | (+92) 337-1891154 | mehnaz.e23@gmail.com
mehnaz-portfolio.web.app

Career Objective

Computer Science student focused on Artificial Intelligence and software development, with hands-on experience in AI agents, RAG systems, LLM integration, REST APIs, and full-stack application development. Seeking an AI-focused role to build intelligent applications, agentic workflows, and practical AI solutions.

Education

Bachelor of Science in Computer Science (BSCS)

2023 – Present

University of Mianwali, Mianwali, Pakistan

Technical Skills

Programming: Python, JavaScript (ES6+), C++

Web: HTML5, CSS3, React.js, Node.js, Express.js, Flask, REST APIs, CRUD, Responsive Design

AI/ML: AI Agents, Tool/Function Calling, LLM Integration, RAG, Embeddings, Semantic Search, Prompt Engineering

AI Tools: Google Gemini AI, GPT-4o-mini, Qwen, LangChain, Sentence Transformers, Tesseract OCR

Databases: MySQL, SQLite, ChromaDB

Tools: Git, GitHub, VS Code, Android Studio

Projects

AI Context Keeper – RAG-Based Developer Assistant *Python, FastAPI, React, ChromaDB, Gemini AI*

- Developed an AI-powered developer assistant that analyzes software projects and preserves development context using a Retrieval-Augmented Generation (RAG) pipeline.
- Built project analysis, source-code scanning, documentation extraction, architecture identification, and semantic search using Sentence Transformers and ChromaDB.
- Integrated FastAPI REST APIs and Gemini AI with a React interface for context-aware codebase interaction and intelligent project documentation.

Medical Receptionist Voice Agent – AI Voice-Based Healthcare Assistant *Python, FastAPI, Gemini Flash, Whisper, SQLite, Piper TTS*

- Developed an AI-powered voice receptionist that handles appointment booking, rescheduling, cancellation, doctor availability, patient registration, and clinic information through natural voice conversations.
- Implemented Gemini Flash for intent detection and tool calling, with modular FastAPI backend functions for appointment management, doctor information, patient records, and human/emergency escalation.
- Integrated Whisper for speech-to-text, Piper TTS for voice responses, and SQLite for persistent patient, doctor, clinic, and appointment data while enforcing receptionist-only safety boundaries.

AI Job Application Agent – AI-Powered Job Search & Application Assistant *Python, FastAPI, React, LLM, Tool Calling*

- Developed a goal-oriented AI agent that automates job discovery, CV analysis, job matching, ranking, application preparation, and tracking.
- Implemented LLM-based planning and tool calling for multi-step workflows including CV analysis, job search, job-description analysis, candidate-job matching, and result verification.
- Built skill-gap detection, match scoring, customized cover letters, resume recommendations, interview preparation, follow-up drafts, and application tracking.

System Control AI Agent – AI Desktop Automation Agent *Python, AI Tool Calling*

- Developed an AI agent that enables natural-language control of desktop and system operations through intelligent tool calling.
- Implemented 12 tools for application launching/closing, window refresh, screen locking, volume and brightness control, screenshots, and system information.
- Designed an agent workflow where the LLM interprets commands, selects tools, generates arguments, executes actions, and returns results with input validation.

AI Learning Assistant – RAG-Based Web Application *Python, FastAPI, React, LangChain, ChromaDB, Gemini AI*

- Developed a full-stack RAG application for PDF-based question answering, learning roadmap generation, and AI-powered quiz creation.
- Implemented PDF extraction, text chunking, semantic embeddings using all-MiniLM-L6-v2, and ChromaDB vector storage for context retrieval.
- Built FastAPI REST APIs and a React frontend integrated with Gemini AI and LangChain for document-based learning interactions.

Skill Swap Pakistan – Mobile Application *React Native, AI Matching*

- Developed a mobile platform connecting learners and experts for skill exchange across Pakistan.

- Integrated an AI-powered matching algorithm based on skills offered, skills needed, and location proximity.
- Designed user profiles, skill listings, messaging, and intuitive mobile UI/UX.

Blossom Food Advisor – AI Food Advisor

Python, Flask, Gemini AI, REST APIs

- Developed an AI-powered food advisor providing personalized meal recommendations, recipes, and location-based restaurant suggestions in Roman Urdu and English.
- Integrated Gemini AI with OpenStreetMap and Overpass APIs for restaurant discovery within a 5km search radius.
- Built a responsive Flask web application with asynchronous API communication, modular services, error handling, and environment-based configuration.

Honors & Activities

- Active participant in university-level coding and software development competitions.
- Developed Skill Swap Pakistan as a capstone project addressing real socio-economic challenges through technology.
- Strong academic interest in Artificial Intelligence, AI agents, web development, and mobile application development.