Asma Aslam

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SUMMARY

Computer Systems Engineering graduate passionate about software development and AI/ML.Skilled in Python and JavaScript, with experience in practical, problem-solving projects.Committed to creating impactful solutions while continuously learning and adapting to new technologies.

EXPERIENCE

Software Engineer   Sep '25 — Present
Information Technology Services   Karachi, Pakistan
- Software Engineer with hands-on experience in MERN stack, AI integration, and backend logic development.
- My work includes building intelligent web applications, developing chatbots, and experimenting with Agentic AI systems to create smart and automated solutions.

Trainee - AI/ML Engineer
360 Xpert Solutions   Karachi, Pakistan
- Expanded expertise in AI/ML concepts through practical applications and continuous learning, including hands-on work with Docker, vector databases, and model fine-tuning
- Gained experience in leveraging Hugging Face models, customizing and fine-tuning them for domain-specific tasks, and deploying solutions tailored to project needs.

MERN Stack Developer
Al Rahim textile industries   Nooriabad, Pakistan (Remote)
- Developed and automated a Customer Complaint Management System for QA and QMS departments, enabling efficient complaint tracking, resolution, and reporting.
- Built using the MERN stack with SQL integration, ensuring robust data handling and smooth workflow automation.

Intern - DISD Department
State Bank of Pakistan   Karachi, Pakistan
- Designed and implemented a chatbot for Raast payments to automate customer support, streamlining operations and enhancing user experience.
- Conducted in-depth research on Central Bank Digital Currency (CBDC), analyzing global trends and potential applications.
- Developed a comprehensive proposal for CBDC implementation, focusing on financial inclusion, digital payment security, and operational feasibility.

EDUCATION

Bachelors in Computer System Engineering, Dawood UET (GPA: 3.9)   Jan '21 — Jan '25
                                                                                                            Karachi, Pakistan

BAMM PECHS Govt College for Women   2019 — 2021
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PROJECTS

Brain Tumor Detection Using AI Vision Transformer
- Developed an AI-based system that analyzes MRI scans to detect and segment brain tumors using Vision Transformer models.
- Python, PyTorch, Vision Transformer (ViT), SegFormer3D, BRATS 2021 dataset.
- Handled dataset preprocessing, trained and tested the model, evaluated performance, and built a React.js web interface for MRI upload and tumor detection visualization.

AI Web Server for detection and tracking of motion
- AI Web Server for Eye Tracking and Disease Detection – detects eye motion and predicts possible eye diseases.
- Python, OpenCV, Machine Learning/Deep Learning models, Flask/Django.
- Worked on building the web server and integrating AI models for real-time eye motion tracking and disease prediction.

RAAST Chatbot
- Raast Chatbot developed to handle user queries and provide assistance for the Raast instant payment system.
- React.js, Python, LangChain, RAG (Retrieval Augmented Generation).
- Built and trained the chatbot using RAG with LangChain, implemented conversation logic, and optimized responses for financial queries.

AI Voice Calling Agent
- AI Voice Calling & Web Chatbot that could make phone calls or web calls, interact with users based on provided context, and support use cases like sales, marketing, and product support.
- OpenAI API, JavaScript, HTML, CSS.

- Developed the chatbot system, integrated AI for context-driven conversations, and built the frontend interface for web and phone call interactions.

Xpert Assistant
- Xpert Assistant – An AI-powered tool that analyzes multiple CVs, extracts key details, matches them with job descriptions, and shortlists candidates using similarity search.
- Python, React.js, LangChain, OpenAI API, Vector Database (FAISS).
- Developed CV and JD extraction pipeline, integrated similarity check with vector database, and implemented the candidate shortlisting logic.

DineSmart AI
- DineSmart AI is a multi-agent restaurant management system where a central chatbot handles customer/staff queries and automatically routes them to the relevant department agent (e.g., kitchen, billing, reservations) for accurate responses.
- OpenAI Agent SDK, Chainlit, Pydantic, Python.
- Designed and implemented the multi-agent architecture, built the chatbot logic, and integrated department-specific agents for seamless query handling.

TrackIt
- A Trello-inspired task tracking application where users can create, assign, edit, delete, and manage tasks across three stages: *To Do, In Progress, and Done*.
- MERN Stack (MongoDB, Express.js, React, Node.js), JWT Authentication, React Router, Context API/Redux, react-beautiful-dnd.
- Built task management features (CRUD, status updates, drag-and-drop), implemented JWT-based user authentication, and designed a clean 3-column task board UI.

SKILLS

Programming Languages   JavaScript, Python

Data & Analytics   Data Mining, Data Preprocessing, Data Cleaning, Data Augmentation, Data Segmentation, Data Annotation

Libraries & Framework   ReactJS, Next.js, Bootstrap, JQuery, tailwaind css, node js, TensorFlow, Open AI Agent SDK, LangChain, PyTorch, NumPy, Panda, Scikit-Learn, Seaborn, Matplotlib, pydantic, huggying face, Neural Networks, RAG, Machine Learning Algorithms, Deep Learning, Fine Tuning

Database   MongoDB, SQL, PostgreSQL, Sql lite, Vector DB

Development Tools   Docker, Vs Code, Jupyter Notebook, Google Colab, Postman, MongoDB Atlas, neo 4j

Soft Skills   Problem Solving, Communication Skills, Decision Making, Multi-Tasking, Teamwork, Leadership

CERTIFICATIONS

MERN Stack Developer, Saylani Mass and IT Training

Data Analytics, DataCamp

Event Manager, E-commerce Gateway & Jamals Yellow Pages

IT Automation with Python, Google Career Certification

AWARDS & ACHIEVEMENT

Ehsas Undergraduate Scholarship Award

FEMHACK Winner $500

Topper of the Class

Win Prime Minister Youth Laptop

VOLUNTEERING

Event Organizer, ITCN ASIA 2023

Vice President , PEF-DUET Chapter

Information Secretary , SCE Departmental Society