#### MOHAMMED EMAD OMER MOHAMMED

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I am a highly skilled software engineer with over 5 years of experience specializing in **MERN Stack** (MongoDB, Express.js, React.js, and Node.js) and **Generative AI** solutions. I possess expertise in multiple programming languages and frameworks, with a focus on building intelligent AI-driven applications, particularly in the realm of **Natural Language Processing (NLP)** and **Generative AI**. I have a strong background in developing robust web applications and AI-powered systems, and I continuously evolve with cutting-edge technologies to deliver optimal solutions for clients.

### **Skills:**

### • Generative AI & NLP:

- o Expertise in **Prompt Engineering** for fine-tuning large language models like GPT and BERT.
- Proficient in using **LangChain** to develop intelligent AI conversational agents with Natural Language Understanding.
- Hands-on experience in crafting and aligning AI outputs with real-world use case objectives.
- Strong knowledge in building AI-powered solutions for document processing, customer service, and data handling.

## • MERN Stack Development:

- 5+ years of experience in React.js, NextJS, MongoDB, Express.js, and Node.js for full-stack development.
- Proficient in designing and implementing scalable, real-time web applications using modern development tools.
- Expertise in building **RESTful APIs** and managing backend services with Node.js and Express.js,
   flask and fast api using python
- Skilled in frontend development using **React** and state management frameworks like **Redux**.
- o Python, JavaScript (ES6+), HTML5, CSS3, Git, Docker
- o Databases: MySQL, PostgreSQL, Firebase, and NoSQL (MongoDB)
- o Knowledge in Machine Learning libraries: TensorFlow, PyTorch, scikit-learn

# **Work Experience:**

### **Senior Generative AI Software Engineer**

Faizads LLC | 2022 - Present

- Led the development of **AI-powered chatbots** and **NLP systems** to enhance customer interactions, resulting in a significant increase in user engagement.
- Built scalable web applications using **React.js** for dynamic UIs and **Node.js** for backend services.
- Developed a proprietary **RAG** (**Retrieval-Augmented Generation**) system to enhance document retrieval and QA capabilities using transformer models.
- Worked with cross-functional teams to integrate AI solutions into existing web platforms, automating processes and reducing operational costs.

## **Full-Stack Developer (MERN Stack)**

Ruknan For public Relations | 2014 - Present

- Developed end-to-end web applications using the **MERN Stack** for media files, e-commerce, SaaS platforms, and internal business tools.
- Integrated third-party APIs and services to extend platform functionality and ensure seamless user experience.
- Mentored junior developers, provided technical guidance on MERN stack projects, and led code reviews to maintain high code quality.

# **Projects:**

#### AI Conversational Assistant

Developed an AI-driven assistant for **NLP-based customer support** using **LangChain** and **GPT** models, enabling the automation of responses for routine queries and document retrieval tasks.

• Document Processing with Generative AI

Built a Generative AI-powered document processing system using transformer models, improving data extraction and information retrieval across large datasets for legal and healthcare industries.

# **Education:**

# Post-Graduate Program in Artificial Intelligence and Machine Learning

Completed September 2024 | University of Texas at Austin

Focused on machine learning deep learning, transformers architectures, and AI solution development.

# **Bachelor of Science: Computer Science**

BAYAN COLLEGE OF SCIENCE AND TECHNOLOGY

## **Certifications & Courses:**

### **Generative AI for Natural Language Processing**

*Key Learning Outcomes:* 

- Mastery in **Prompt Engineering** for crafting effective prompts and fine-tuning outputs of large language models.
- Practical knowledge in using **BERT** and **GPT** model families for **NLP** tasks and real-world AI solutions.
- Developed conversational AI assistants with **LangChain**, capable of understanding and responding to complex queries, including tasks involving private data.