



Senior Software Engineer (AI)

As a Software Engineer with 5 years of experience, I specialize in developing AI solutions across computer vision, NLP, LLM agents, data engineering, and analytics. I have a strong track record working in both consulting and product-based environments, including corporate and startup settings. I am skilled in designing and deploying machine learning models that deliver measurable business value, and I am deeply committed to continuous learning and staying at the forefront of artificial intelligence advancements.

PROFESSIONAL  
EXPERIENCE

Nov 2022  
Present

Senior Machine Learning Engineer

Analog Mutations, Dubai

- Developed a crypto chatbot using Retrieval-Augmented Generation (RAG) for real-time market insights, increasing user engagement by 20%.
- Integrated AI-powered wallet transactions with LLM agents, boosting sales efficiency by 5% and expanding the user base by 10%.
- Designed a packet summary system for medical lien packets using multimodal models, reducing summarization time by 90%

**Skills:** Python, LLMs (Llama 3), multi-modal(CLIP), Prompt Engineering, RAG, Langgraph, PyTorch, Docker, FastAPI, Azure DevOps MongoDB, AstraDB, Gradio

Apr 2021  
Oct 2022

Machine Learning Engineer

Love For Data, Pakistan

- Developed a voice-based authentication system to enhance identity theft protection, achieving a 5% improvement in detection accuracy.
- Implemented context-based summarization systems for business intelligence reports, increasing summary accuracy by 40%.
- Automate invoices and delivery note processing using RAG-based VLMs and LLMs, reducing manual efforts by 80%.

**Skills:** Python, LLM (Claude, Qwen), Model Training/Finetuning, Langchain, Prompt Engineering, Speech Processing (ECAPA-TDNN), RoBERTa, PyTorch, Postgresql, MySQL, Milvus, Streamlit, Flask, sk-learn, GitLab

Apr 2020  
Mar 2021

Artificial Intelligence Engineer

Digital Landscape, Pakistan

- Developed an aspect-based sentiment analysis tool tailored for Roman Urdu reviews, improving sentiment accuracy by 10%.
- Developed a sign language system using hand landmark detection, improving social media interaction of the deaf by 20%.
- Automated crime surveillance workflows using object detection and tracking systems, improving response time by 15%

**Skills:** Python, ResNet, VGG, YOLOv5, hand landmark detection, encoder-decoder (LSTM), Flask, PyTorch, SQLite, OpenCV, GitHub, Tensorflow, GitHub, K8s.

Jun 2019  
Mar 2020

## Associate Artificial Intelligence Engineer

Optimizia, Canada

- Built a custom OCR system for KSA, UAE, and Bahrain passports, reducing manual validation time in the E-KYC process by 30%.
- Developed an SOP compliance monitoring system for a bakery kitchen, enabling real-time alerts for non-compliance and improving monitoring efficiency by 20%.
- Created a Roman Urdu-to-English translator for an e-commerce platform, enhancing customer support and expanding the user base by 5%.

**Skills:** Python, Data preparation, Model Finetuning, Neural Machine Translation (seq2seq-LSTM), YOLOv3, Paddle OCR, MySQL, Flask, Tensorflow, AWS, Sk-learn, Keras

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## EDUCATION

Aug 2021  
Dec 2023

### Master of Science (Computer Science)

Mohammad Ali Jinnah University, Pakistan

**Specialization:** AI/ML

**Thesis:** Evidence Retrieval For Evidence-based Medicine

Jan 2015  
May 2019

### Bachelors of Science (Software engineering)

Mohammad Ali Jinnah University, Pakistan

Computer architecture, Software development, Project management, Networking design and engineering. Data Science, Cryptography

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## PUBLICATIONS

- Hybrid Features Binary Classification of Imbalance Stroke Patients Using Different Machine Learning Algorithms ([link](#))

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## SKILLS & ABILITIES

- **Programming & Scripting:** Python, Bash, C
  - **AI & Machine Learning:** Computer vision, NLP, Hugging Face, PyTorch, TensorFlow, Keras, Fine-Tuning, Quantization, LangSmith, LangGraph, Multi-Agent Systems, RAG, Sk-learn
  - **Data Engineering & Databases:** PostgreSQL, MySQL, SQLite, MongoDB, Vector Databases, NoSQL
  - **Cloud & DevOps:** Azure, Docker, Kubernetes, GitHub Actions, Virtual Servers, Apache Kafka
  - **Web Development & APIs:** Django, Flask, FastAPI, Streamlit, Gradio
  - **Data Processing & Visualization:** BeautifulSoup, Web Scraping
  - **Project Management:** Agile (Scrum, Kanban), Waterfall
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