SHUBHAM MURTADAK
Generative AI Engineer

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ABOUT ME

I am an AI Engineer proficient in Python, Machine Learning, Deep Learning, NLP,Generative AI and Agentic AI passionate about creating impactful solutions. Driven by curiosity and an unwavering desire to learn, I am committed to continuous growth and making meaningful contributions in the field of AI.

EDUCATION

B.E. in Artificial Intelligence & Data Science **2021-2025**
PES Modern College of Engineering Pune
CGPA: **9.20**

Senior Secondary (XII), Science **2020**
Shree Ganesh Jr College, HSC Board
Grades: **83.38%**

Secondary (X) **2018**
New English School Korhale, India
Grades: **89%**

SKILLS

Primary Skills:

- **Programming Languages:** Python, R, C++, SQL
- **Python/ML/CV Packages:**Pandas,Numpy, Matplotlib, Seaborn,Scikit-Learn
- **Knowledge of Machine Learning**
- **Deep Learning:** Neural Network,ANN,CNN,Transfer Learning
- **TensorFlow**
- **NLP :**NLTK,Spacy,RNN,LSTM RNN, Transformers
- **Generative AI**:LLM,RAG,**LLM Finetuning**
- LangChain Framework,LlamaIndex Framework,Vector Databases,Graph Databases
- **Agentic AI**, Autogen Framework, Crewai Framework ,Langgraph

Secondary Skills:

- **WEB TECHNOLOGIES:** Basics of HTML, CSS, JavaScript,React,Flask,Fastapi,Streamlit
- **DATABASES:** MySQL, MongoDB
- **Visualization Tools:** PowerBI, Microsoft Excel
- **Web Scraping:** Scrapy, BeautifulSoup, Selenium
- **Cloud Platform Services:** AWS
- **Docker**

EXPERIENCE

Generative AI Intern Jan 2025 - march 2025
Stealth Startup *Bengaluru, Karnataka, India (Remote)*

- Developed a Proof of Concept (PoC) for a SaaS-based chatbot, enabling clients to generate unique URLs and JavaScript snippets for seamless integration into their platforms, while storing conversation history in mongodb and deploying using AWS EC2 instance with Docker. Deployed Link.
- Developed an AI-powered automatic email response system using ai agents for healthcare, integrating MongoDB for internal data retrieval and external healthcare sources for accurate responses. Used AI agents to analyze incoming emails, generate response ,calculate confidence scores, preventing responses below 60% confidence from being sent. Built a React-based dashboard for reviewing and editing low-confidence emails and sent them,added a scheduling feature to start/stop automated responses.
- Developed a job portal for an EdTech platform that scrapes job listings from top IT companies, automatically updating the database every day to add newly posted job opportunities, ensuring that users always have access to the latest openings in the industry.

Data Science Intern June 2024 - jan 2024
DataNnoviteSol LLP *Pune, Maharashtra (Onsite)*

- Conducted research and development to identify the best tools and solutions for Generative ai project requirements, ensuring optimal fit for various use cases.
- Developed a comprehensive solution for analyzing and processing clients' transaction and campaign data, incorporating Generative AI to optimize campaign performance.
- Develop Generative AI module for *dataRobo*, DataNnovite's AI-driven platform, allowing users to query and retrieve document content via a conversational interface.

PROJECTS

1. Automated Business Insights and Campaign Optimization

- Developed an LLM-powered solution using RAG to analyze client transaction and campaign data, enabling data-driven decision-making through a custom dashboard.
- Generated personalized texts messages to Targeted specific customer segments for future campaigns.
- Containerized the application using Docker
- **Tech Stack:** Python | LangChain | RAG | Milvus | Time Series Analysis | Flask | Docker

2. DataRobo

- Developed a question-answering module for structured and unstructured documents (KYC forms, PAN, invoices, legal contracts).
- Fine-tuned LLMs (*Gemma2 2B*, *Qwen-2.5 3B*) for use-case optimizations.
- Enabled multi-document and *Multimodal RAG* querying, integrating text and images from PDFs.
- Managed multi-user chat history with *MongoDB* for context-aware responses.
- Optimized extraction and querying for large PDFs (up to 100 pages).
- **Tech Stack:** Python | LangChain | RAG | Milvus | Gemini 1.5-Pro | Gemini 1.5-Flash | LlamaParser | Flask | MongoDB

3. DocEase Chat with Documents Deployed Link

- Developed an AI-powered platform enabling seamless interaction with **PDFs, PowerPoint, and Word files**, providing intelligent document analysis and **question-answering** capabilities.
- Enhanced document understanding by **extracting and displaying relevant images** from PDFs, offering better context and insights.
- Supported **10 Indian languages** (Marathi, Hindi, Gujarati, Assamese, Punjabi, Kannada, Tamil, Telugu, etc.) for **document analysis and question-answering**, catering to a multilingual audience.

- Integrated **text-to-speech and speech-to-text** functionalities, ensuring hands-free interaction and accessibility.
- Enabled **document and chat history storage** using Firebase and Firestore, retaining user interactions for up to **30 days** and allowing seamless continuation of conversations.
- **Deployed on AWS EC2 instance** with a custom domain www.docease.in.
- **Tech Stack:** Python| React | FastAPI | LangChain | Gemini-1.5 Pro| Chromadb | Firebase | Firestore | AWS

4. POExtractor click here

- Developed an AI tool for real-time email monitoring and automated purchase order (PO) classification.
- Parsed key PO details (PO number, items, quantities, delivery dates, payment terms) using *MiStral-8x7B* and *LLAMA Parser*.
- Built a user-friendly interface with *FastAPI* (backend) and *React* (frontend) for data visualization and manual corrections.
- User can edit and send replies to classifed purchase orders mails on React dashboard.
- Enabled multi-format attachment processing (PDF, Excel, CSV, Images, Word).
- **Tech Stack:** Python | LLAMA Parser | LangChain | FastAPI | React

5. Anuwad - English to Marathi Translator click here

- Developed a neural machine translation model using *TensorFlow*, leveraging the *Bahdanau Attention* mechanism to translate sentences from English to Marathi.
- Implemented an encoder-decoder architecture, where the encoder processes input sequences and the decoder generates target sequences based on context.
- Integrated *Bahdanau Attention* to improve translation quality by enabling the decoder to focus on relevant parts of the input sequence during generation.
- Built a user-friendly UI using *Flask*, allowing users to input English text and receive Marathi translations seamlessly.
- **Tech Stack:** Python | TensorFlow | Bahdanau Attention | Flask

6. D-predicto click here

- Developed an end-to-end application predicting **diabetes**, **heart disease**, and **Parkinson's disease** using **XGBoost** model.
- Integrated an Genai based chatbot into the website to improve user interaction and access to information.
- Included a feature for users to book appointments with doctors if needed.
- **Tech Stack:** Python | SK Learn | ML | Numpy | Pandas | NLP | Flask | Langchain | GitHub

7. RetainIQ click here

- Developed a system for predicting employee churn using **RandomForest** model to analyze workforce data.
- Implemented features for model training, batch prediction, and single employee prediction to determine retention likelihood.
- Built using Flask for web-based interaction
- **Tech Stack:** Python | SK Learn | ML | Numpy | Pandas | NLP | Flask | GitHub

CERTIFICATES

- LLM Agents MOOC 2024 by universtiy of Berkeley
- Langchain with python bootcamp Udemy
- tensorflow for deep learning Udemy

ACHIEVEMENTS

- Winners Of Prostart 2023(Software Category)-Team Matrix
- Earned Golden Badge in Python On HackerRank