CRISTEENA JOSEPH

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OBJECTIVE

Skilled in Python backend development and deployment, with strong ability to adapt beyond comfort zone, along with professional expertise in AI/ML solution building and software development.

CERTIFICATION

Microsoft Certification - Fundamentals of AI(AI 900) - Credentials

July 2023

WORK EXPERIENCE

AI Automation Developer

April 2025 - Present

Execulink Telecom (Full time Contractor)

Toronto, Ontario.

Technologies – Python, SQLAlchemy, Azure, Llamaindex, VectorStore, Graph API, LLM
 Integrated organizational SharePoint sites with a central RAG-based chatbot, enabling real-time,

- document-grounded responses across enterprise knowledge sources.
 Automating customer service quality analysis using a chatbot capable of semantic search over call
- transcripts and text-to-SQL querying over structured call record databases
 Developed RAG-enabled chatbots utilizing vector databases such as pgvector, enabling dynamic
- retrieval and delivery of knowledge base content through contextual semantic search.

 Engineered **document indexing** pipelines using **LlamaIndex**, enabling **metadata-aware filtering** and improving retrieval precision for downstream applications.
- Designed and deployed Azure Durable Functions integrated with Service Bus queues to support scalable, fault-tolerant ingestion and indexing of SharePoint site files, including delta tracking for continuous synchronization.
- Created a **custom database schema** to track SharePoint file access, incorporating **Microsoft Graph API** to capture real-time file permissions and metadata.
- Built and maintained CI/CD pipelines using **Azure DevOps**, orchestrating seamless deployment and updates for **Function Apps** and **Web Apps** across development and production environments.

AI Developer

April 2023 – March 2025

Upwork (Part time)

Toronto, Ontario.

Technologies – Python, Flask, Azure, Docker, CI/CD, LLM

- Partnered with clients to **define architectural solutions**, manage project timelines, and ensure alignment with technical requirements and business objectives.
- Applied advanced LLM methodologies including few-shot learning, RAG workflows, and prompt engineering for intelligent automation and chatbot development.
- Developed robust automation frameworks using **Selenium** and **Pyppeteer** for browser-based tasks across **Linux and Windows** platforms.
- Containerized API services using **Docker**, and implemented **Azure DevOps pipelines** for seamless deployment to Azure-hosted environments.

Systems Engineer

January 2021 – March 2023

Tata Consultancy Services (Research and Innovation)

Trivandrum, Kerala, India.

Technologies – Python, Flask, AWS, PostgreSQL, AI/ML, CI/CD

- Developed AI/ML modules for projects by analyzing scope and feasibility.
- Deployed and integrated AI/ML models into Restful APIs using Flask framework.
- Addressed research use-cases, crafted POCs, and designed AI solution architectures.
- Optimized algorithms to improve performance and reduce latency by 20%.
- Participated in software IP assessments and communicated project architectures and workflows.
- Developed AI solution on AWS cloud platforms and utilized open-source solutions.
- Operated within an Agile environment, employing Jira and version control tools such as Git.
- Delivered technical documentations, technical tutorials on AI/ML concepts to diverse audiences.

PROGRAMMING LANGUAGE AND TECHNOLOGY

Programming Languages: Python, C, SQL, HTML, CSS, JavaScript

Database: PostgreSQL, SQLite

Frameworks: Flask, FastAPI, Spark, Selenium, Tensorflow **Tools**: Git, GitHub Actions, Azure DevOps, Jira, Jenkins

Core Skills: Machine Learning, Deep Learning, NLP, Computer Vision

AI/ML: scikit-learn, Hugging Face, LLM, LangChain, Llama3, Llamaindex, OpenAI

Visualization Software: Microsoft Power BI, Tableau

Cloud Environment: AWS (EC2, Lambda), Azure (Function Apps, Web Apps, Durable functions)

Containerization: Docker OS: Linux, Windows

PROJECTS

SharePoint Integrated Chatbot Execulink - (FastAPI, LLM, Llamaindex, RAG)

January 2025

- Developed a chatbot that answers user queries using a vector-based knowledge base built from SharePoint-uploaded documents.
- Implemented permission-based document access via indexed tables.
- Designed algorithms for semantic search and retrieval.

Legal Chatbot *Upwork* - (Django, LLM, few-shot learning)

April 2024

- Chatbot to conversate with client and resolve legal inquiries and collect client information.
- Trained the LLM with few-shot learning conversation samples to adapt its response style.
- Implemented functions to facilitate conclusions and summarize the chat.

<u>Tax verification automation</u> <u>Upwork</u> - (Flask, Pyppeteer, Docker)

April 2024

- Automated tax verification for online validation of tax IDs.
- Utilized Flask APIs to pass tax IDs in the API body, employing ChromeDriver to automate online verification and return validity status.
- Dockerized backend code to deploy in a cloud environment.

Hospital Log Generation *Upwork* - (Python, LLM, LangChain, RAG)

February 2024

- Created a 24-hour hospital log by processing 200-page daily reports.
- The updated daily reports are vectorized for keyword-based searches, for context retrieval.
- Retrieval-Augmented Generation (RAG) concept is employed in the LLM for generating logs.

<u>Automated News Emailer</u> <u>Upwork</u> (Python, Puppeteer, LLM)

January 2023

- Developed a timer-triggered email service delivering daily news summaries and personalized Q&A.
- Automated content generation by extracting news from an RSS feed and using LLMs for concise summaries.
- Emails are automatically triggered and sent via SendGrid on a daily schedule.

<u>Interview Coach Application</u> <u>TCS</u> - (Flask, Restful API, PostgreSQL, HTML, JavaScript)

March 2023

- Developed an AI-powered online interview system to evaluate participant audio responses.
- The backend is deployed as a Flask application using RESTful APIs.
- Improved architecture to migrate speech to text to frontend reducing processing time by 30%.
- Deployed machine learning modules like sentiment analysis, speech tone assessment, and answer evaluation.

EDUCATION

Ontario College Graduate Certificate - Artificial Intelligence and Data Science Loyalist College in Toronto

May 2023 – Present

Toronto, ON.

Bachelor of Technology - Computer Science and Engineering *Kerala Technological University*

August 2016 – June 2020 Thrissur. Kerala. India.