CRISTEENA JOSEPH

Scarborough, ON, M1S 0G3 | (647) 982 4693

[josephcristeena97@gmail.com](mailto:josephcristeena97@gmail.com%20) | [LinkedIn](https://www.linkedin.com/in/cristeena-joseph-521b59141/) | [GitHub](https://github.com/Cristeen20)

# 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](https://learn.microsoft.com/api/credentials/share/en-us/CRISTEENAJOSEPH-3745/CE4478AE6859B3D7?sharingId=E8401270546EE770) July 2023

# WORK EXPERIENCE

**AI Automation Developer April 2025 – Present**

*Execulink Telecom (Full time Contractor) Toronto, Ontario.*

**Technologies** – Python, Flask, 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*](https://www.execulink.ca/) **-** **(**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.

**Tax verification automation** [*Upwork*](https://botangelos.com/careers.html) **-** **(**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*](https://leverage.it/) **-** **(**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.

[**Automated News Emailer**](https://github.com/Cristeen20/Scrap_News) [*Upwork*](https://botangelos.com/careers.html) **(**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.

**Interview Coach Application** [*TCS*](https://www.tcs.com/) **- (**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 May 2023 – Present**

*Loyalist College in Toronto* *Toronto, ON.*

# Bachelor of Technology - Computer Science and Engineering August 2016 – June 2020

*Kerala Technological University* *Thrissur, Kerala, India.*