

Vigneshwaran D

Manager - Digital Assistant

Experienced Manager with over 8 years in process engineering solutions, specializing in **Hyperautomation**, Chatbots, and RPA. For the past 2 years, I have focused on Large Language Model (LLM) projects and Retrieval-Augmented Generation (RAG) technologies. Seeking a challenging role to leverage my expertise in AI innovation and drive business growth.

WORK EXPERIENCE

Manager - Digital Assistant Pepsico, Hyderabad, IND

Oct 2023 – Present

Current role responsibilities:

- Skilled in developing advanced Generative AI solutions, leveraging LLM, RAG, LangChain, and LlamaIndex.
- Experienced in creating conversational AI interfaces that enhance user engagement and satisfaction.
- Proficient in leveraging these platforms to design efficient and effective AI-driven conversational systems.
- Solution Architecture for complex AI and conversational solutions.
- Created architecture for the process.
- Conducted scrum calls with the development team.
- Participated in sprint planning.

Generative AI development:

- Delivered **3 production-ready projects** using Generative AI and RAG.
- Created **10 proof-of-concept (POC)** projects based on Generative AI.

Conversational AI development:

- Managed **Conversation AI Chatbot** projects across multiple departments in the organization.
- Coordinated with vendor developer teams at all stages of development as a product owner.

Data Science Manager Foundever, Chennai, IND

Oct 2020 – Sep 2023

Role responsibilities:

- Skilled in developing Chatbot solutions using AWS Lex and **Power Virtual Agent**.
- Experienced in creating conversational interfaces that enhance user engagement and satisfaction.
- Proficient in leveraging these platforms to design efficient and effective Chatbots.
- Manage the UiPath RPA development team.

Hyperautomation solution development:

- Implemented a Hyperautomation solution using Chatbot and UiPath, cutting manual processing time by 60% and saving **\$150,000 annually**.
- The solution acts as a virtual assistant for users to resolve account issues directly with the Chatbot.

CONTACT

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- Portfolio Website: https://vigneshwaran-d.github.io/Personal_Profile/

SKILLS

Soft Skills:

- Project Management
- Solution Architecture
- Digital Transformation
- Opportunity Identification
- Cost Controls
- Collaboration

Hard Skills:

- Generative AI (Langchain, LlamaIndex, RAG)
- Conversational AI (OneReach, Dialogflow CX, AWS Lex, Power Virtual Agent)
- Cloud Solution (AWS, Azure)
- RPA (UiPath, Power Automation, WinAutomation, Automation Anywhere, Blue Prism)
- BI Tool (Power BI)
- UI/UX (Figma)
- Programming (Python, VBA, AHK)
- Database (DynamoDB, SQL)

CERTIFICATIONS

- LangChain - LLM Powered application with Langchain
- Microsoft Azure Cognitive Services
- AWS Solutions Architect - Professional
- Azure Architect Design Certification Prep
- UiPath Level 2 - Orchestrator 2018.3 Certification
- RPA Solution Architecture Fundamentals
- Virtual Agent Development in Dialogflow CX for Software Dev
- Figma UI UX Design
- Six Sigma White Belt

EDUCATION

- BCA - Sathyabama University - 2011
- Higher Secondary - KRMS - 2008

RPA Orchestrator development:

- Developed an **RPA orchestrator using Python and AWS** service.
- Enabled deployment of any open-source RPA solution.
- Version & Access control
- Log management

Dynamic Dashboard development:

- Created an interactive dashboard in Power BI using **DAX**.
- Retrieved required details from multiple APIs.

RPA solutions development:

- Designed and developed over **40 RPA solutions**, resulting in significant productivity gains and a reduction of up to **250 Full-Time Equivalents (FTEs)**.

PROJECTS

Project 1: BI Chatbot Using LLM and RAG for SQL Data Retrieval and Predictive Analytics

- Achieved a **\$900K cost saving** by reducing the number of analysts required to manage research data from 40 to 16, significantly enhancing operational efficiency.
- Summarize documents across multiple collections, each containing 5 to 20 documents sourced from diverse platforms, including the Internet.
- Developed a comprehensive data pipeline for efficient ingestion, data cleaning, and processing of documents into manageable chunks.
- Integrated **Azure Document Intelligence for OCR** to convert images and scanned data within documents into text, enhancing data accessibility.
- Implemented a robust vectorization process and stored the final data in a Vector Database for optimized retrieval and analysis.
- Designed and deployed a user-friendly web application for accessing and reviewing summarized data **powered by Large Language Models (LLMs)**, including a chatbot feature for interactive information retrieval.
- Incorporated a **Reinforcement Learning with Human Feedback (RLHF)** mechanism to capture user feedback on summaries, storing revised data for model retraining and custom prompt creation.

Project 2: BI Chatbot Using LLM and RAG for SQL Data Retrieval and Predictive Analytics

- Developed a business chatbot using LangChain and custom agents to understand database table schemas.
- Enabled data retrieval from SQL databases based on natural language user input.
- Implemented predictions for the next best actions using the retrieved data.
- Created AI-generated charts to visually represent the results.
- Utilized LangChain, **Multi-Agent Framework**, SQL RAG, and predictive analytics techniques.
- This resulted in a **reduction of 7 FTEs** in MIS and the **elimination of over 80 report-creation** processes.

Project 3: Admin Chatbot - AWS Lex

- Identified potential for a **Hyper Automation** use case to address administrative activities for the CallMiner Admin Team.
- Evaluated existing manual processes for creating, deleting, resetting passwords, and addressing login issues.
- Developed a chatbot solution to collect requests from both agents and the admin team and follow business conditions to complete actions and notify the respective team.
- Successfully implemented the solution, reducing the admin team headcount from **10 to 2 FTEs** due to the Bot taking care of repetitive actions.

DECLARATION

I, Vigneshwaran D, hereby declare that the information contained herein is true and correct to the best of my knowledge and belief.

Regards,
Vigneshwaran. D



Chennai,
Tamil Nadu,