Alan Jiji Varghese

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PROFILE

Highly motivated and results-oriented CSE Al/ML Engineer with a proven track record in developing and deploying intelligent systems. Proficient in leveraging advanced Al/ML techniques, including prompt engineering (zero-shot, one-shot, few-shot prompting) for large language models. Experienced in designing and implementing conversational Al solutions, as demonstrated by the development of a banking chatbot using IBM Watson Assistant. Skilled in natural language processing tasks such as product feature extraction and sentiment analysis, driving actionable insights from textual data. Eager to apply expertise in Al/ML to solve complex problems and contribute to innovative projects.

EDUCATION

Sr.	Name of the	Name of the	Name of board/	Year of	Percentage/	Subjects/
No.	Degree	school/	university	passing	CGPA	Specialization
		college				
1.	Bachelor of	VIT Bhopal	School of	2027	9.27	B.Tech in Computer Science
	Technology	University	Computing			and Engineering (with
	(B.Tech)		Science and			specialization in Artificial
			Engineering			Intelligence and Machine
			(SCSE)			Learning)
2.	Higher	Delhi Public	CBSE	2023	86.8%	1. English
	Secondary	School, Bhilai				2. Mathematics
						3. Physics
						4. Chemistry
						5. Computer
						Science
3.	High School	Delhi Public	CBSE	2021	94.5%	1. English
		School, Bhilai				2. Hindi
						Mathematics
						Social Science
						5. Science
						6. Computer
						Applications

SKILLS

Machine Learning
Deep Learning
DSA
Microsoft Azure
Tableau
Excel
Prompt Engineering
IBM Cloud

IBM Cloud IBM WatsonX.ai

CODING LANGUAGES

Python Java C++ HTML Data Analysis Statistics IBM Watson Assistant Illustrations Creative Designing 2D Animation Web Development RDBMS RAG

CSS SQL MATLAB Kivy

WORK EXPERIENCE

Machine Learning Engineer

LearnFlu Pvt. Ltd.

September 2024 - January 2025
Remote

Spearheaded an Iranian Customer Churn Prediction project, culminating in the development and training of a Neural Network model that achieved 94% classification accuracy.

This initiative involved a complete machine learning pipeline, from detailed data preprocessing and exploratory data analysis (EDA) to advanced deep learning model training and rigorous performance evaluation.

Employed various visualization techniques, such as heatmaps, accuracy plots, and confusion matrices, to facilitate model interpretation.

This experience honed my technical skills and provided valuable exposure to real-world machine learning applications within business analytics.

Prompt Engineering

IBM may 2025 - July 2025 Remote

Developed a product feature extraction and sentiment analysis system for smartphone reviews, utilizing the FLAN-T5-Large model and prompt engineering techniques.

This project involved extracting key product features (e.g., "camera quality," "battery life") from reviews and classifying sentiment based on ratings. By aggregating and analyzing feature mentions in positive and negative contexts.

I generated clear summaries of customer feedback, identifying most and least appreciated product aspects to provide actionable insights for product development and enhancement.

Conversational AI Designer

As a Conversational AI Designer, I was responsible for the end-to-end development of a specialized chatbot tailored for banking inquiries, leveraging IBM Watson Assistant.

My role encompassed the meticulous design of all conversational actions and their intricate flows, ensuring seamless user interactions for common bank-related queries such as account creation, balance checks, and transaction history.

Through this work, I successfully delivered an intuitive and efficient Al solution that significantly enhanced customer service capabilities.

PROJECTS

NSFW-Content-Detection

This project develops a Convolutional Neural Network (CNN) model to automatically detect Not Safe For Work (NSFW) content in images, primarily for use in identifying and flagging inappropriate content on social media streaming platforms. As in today's world it is a major concern especially for the younger audience. With the increasing prevalence of live streaming and user-generated content, social media platforms face significant challenges in moderating inappropriate content in real-time. This project addresses this by providing a machine learning solution to automatically identify and flag NSFW content, enabling platforms to take swift action (e.g., takedown or age-restriction). The model is a deep learning-based image classifier built using TensorFlow/Keras.

Medical-Image-Classifier-Model

This project implements a Convolutional Neural Network (CNN) using TensorFlow and Keras to classify medical images into three distinct categories: X-ray, MRI, and CT scans. The model is trained from scratch on a custom dataset. The primary objective of this project is to develop an automated system that can accurately identify the modality of a given medical image (X-ray, MRI, or CT scan). This can be useful in various medical imaging workflows, such as organizing big datasets, routing images to appropriate specialists, or as a pre-processing step for more specialized analysis.

RESEARCH WORK

EEG Signal Analysis for Seizure and Non-Seizure Classification with Integration of LIME and SHAP for Better Interpretability of the Model

Published: https://www.jetir.org/papers/JETIR2507378.pdf

Healthcare Application for EMG Signal Detection using CNN-LSTM model

Under Reviewing Process

Healthcare Application for Skin Disease Detection using ResNet-50

Under Reviewing Process

CERTIFICATES

Data Analytics Job Simulation Applied Machine Learning Using Python

Microsoft DP 900 SQL (Basic)

Gen Al using IBM WatsonX Software Engineer Intern

Cloud Computing Python (Basic)

ACHIEVEMENTS & PARTICIPATIONS

Participated in Google Gen Al Hackathon

October 2024

Level Up: Introduction to Game Development using Unity

E February 2024

3rd Position in Animax 2.0 : Animation Category

E February 2024

Fairness and Trust in Mathematical Modelling and Machine Learning Techniques

October 2023

BADGES

Hackerrank: Python – 4 star; C++ - 4 star

Microsoft: Microsoft DP-900 Azure Fundamentals

LANGUAGES

Language	Fluency (Little to Effluent)
English	••••
Hindi	••••
Malayalam	•••○
Japanese	●●○○