***Alan Jiji Varghese***

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**PROFILE**

Highly motivated and results-oriented CSE AI/ML Engineer with a proven track record in developing and deploying intelligent systems. Proficient in leveraging advanced AI/ML techniques, including prompt engineering (zero-shot, one-shot, few-shot prompting) for large language models. Experienced in designing and implementing conversational AI 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 AI/ML to solve complex problems and contribute to innovative projects.

**EDUCATION**

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

**SKILLS**

Machine Learning

Deep Learning

DSA

Microsoft Azure

Tableau

Excel

Prompt Engineering

IBM Cloud

IBM WatsonX.ai

Data Analysis

Statistics

IBM Watson Assistant

Illustrations

Creative Designing

2D Animation

Web Development

RDBMS

RAG

**CODING LANGUAGES**

Python

Java

C++

HTML

CSS

SQL

MATLAB

Kivy

**WORK EXPERIENCE**

**Machine Learning Engineer**

LearnFlu Pvt. Ltd.  September 2024 - January 2025  Remote

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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

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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**

IBM  May 2025 - July 2025  Remote

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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 AI 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**

Deloitte  July 2025

**Microsoft DP 900**

Microsoft  June 2025

**Gen AI using IBM WatsonX**

IBM  June 2025

**Cloud Computing**

NPTEL  April 2025

**Applied Machine Learning Using Python**

Coursera  November 2024

**SQL (Basic)**

Hackerrank  September 2024

**Software Engineer Intern**

Hackerrank  September 2024

**Python (Basic)**

Hackerrank  March 2024

**ACHIEVEMENTS & PARTICIPATIONS**

**Participated in Google Gen AI Hackathon**

 October 2024

**Level Up: Introduction to Game Development using Unity**

February 2024



**3rd Position in Animax 2.0 : Animation Category**

 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**

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| --- | --- |
| Language | Fluency (Little to Effluent) |
| English | **●●●●●** |
| Hindi | **●●●●●** |
| Malayalam | **●●●◌◌** |
| Japanese | **●●◌◌◌** |