

RAHUL VERMA (6 Years)

(NLP, Gen AI, Machine Learning, and MLOPs along with Product Development)

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[Github](#)

[Linkedin](#)

[HackerEarth](#)

[StackOverflow](#)

[Kaggle](#)

SKILLS

Python, Keras, Numpy, NLTK, CNN, Tensorflow, Pytorch, Data Structure, Flask, Rest API, C++, Pandas, Mysql, Gensim, LDA, Open CV, Algorithm, HTML, Kubernetes, selenium, C, Docker, K8, Git, BERT, CRF, CronJob, SQL, Linux, Rasa, OPenshift, LLM, ChatGPT, GPT, Langchain, MLOPs, DevOps, Flowise, MongoDB, Vector Database, Pinecone, Milvus, PDFChat, Apache, Ngnix, SSL Configuration, AWS, Azure, GCP

EXPERIENCE

IDFC First Bank - Generative AI Developer - Senior Manager (Sept 2023 - Current)

- Build Knowledge AI- A generative AI Assistant to get the answers to all the questions asked related to the documents.
- Build the architecture of the application and build the complete backend from scratch.
- Deploy the application on AWS at production scale.
- Build a Content Generation Tool using Gen AI to generate the content for different use cases of the Bank, e.g., Collection, Marketing.
- Used Generative AI to get the debt solution for the customer based on the financial information of the customer.

First Credit Ites Pvt Ltd.- Senior NLP Engineer (2.6 years)

Mar 2021 - Aug 2023

- Developed a chatbot using Rasa for debt collections.
- Used Generative AI to get the debt solution for the customer
- Designed a Database for the conversational bot using PostgreSQL and MongoDB
- Used LLM and Langchain for the building of a QA Bot for policy and compliance.
- Build and deploy a custom LLM model for language translation in more than 5 Indian languages.
- Deploy best-in-class ML/AI models
- Developed Custom chatbot UI using JavaScript, HTML, and CSS, and made integration of Rasa server with UI.
- Developed ETL Jobs for databases using Pentaho and visualization of dashboards using Power BI.
- Design an on-premise version control git server and CI-CD pipeline for deploying APIs.
- Developed sending mail, sending notifications, and encryption services using AWS.
- Worked on the time series modeling for sales price prediction

VDart Technologies Pvt Ltd(Toyota Inc), Bangalore — Data Scientist

April 2020 - Mar 2021

- Build a customer support chatbot using Amazon Lex
- JIRA Automation for automatic issue creation
- Jira Report automation, text summarization, and Epic classification
- CRM support system automation using chatbot and conversational AI

Niki.ai, Bangalore — NLP Engineer

Sept 2019 - April 2020

- Build an Entity detection model using BiLSTM and CRF for extracting Names, Locations, and Hotel names from the user utterances in the Bus domain.
- Build fraud detection automation to detect fraudulent coupon codes using Selenium and Docker.
- Entity detection model for HINDI data.
- End-to-end NLP service deployment and Creation on Kubernetes and Docker.

Miko.ai, Mumbai — AI Engineer

June 2019 - Sept 2019

- Build a sentiment analysis model for Audio Data
- Math Parser for solving class 1-5 math problems.
- Developed a speech-to-text model for Miko2

Yatra.com, Gurgaon — Data Science Intern

May 2018 - July 2018

- Intent Detection for a flight search query.
- Extracting the entity from the flight search query.

EDUCATION

- **ABV- Indian Institute of Information Technology and Management, Gwalior Integrated B.Tech + M.Tech**

July 2014 - May 2019

Information Technology

- **M.TECH RESEARCH**

Breast Cancer Classification of Histopathological Images Using Deep Neural Network

- Classify the Images into benign and malignant classes using a deep neural network
- Select the best magnification factor based on its accuracy for the classification of the images

PROJECTS

ChatPDF using ChatGPT and Langchain

- Multi-user multi-pdf chat application where we maintain the user session along with the source of the response.
- Worked on building the core NLP Framework for chat session management and generating answers from the PDF.
- Build a CI-CD pipeline for auto-deployment and scalability of the server.
- Deployed the frontend and backend using Docker and added an SSL Certificate and domain using Apache2.

Text Classification and Information Extraction — B.Tech Project

- This project will describe the Binary Text Classification of Email data with the help of NLP and Noun Phrase Extraction from a sentence.

Topic Modeling using LDA(Latent Dirichlet Allocation) — ACL Data

- Create the raw data from all the documents present in the ACL data.
- Used LDA with word embeddings for extracting the top topics from each document
- Draw the plot based on the similarity of topics over time.
- Use Natural Language Processing on NIPS papers to uncover the trendiest topics in machine learning research.
- Implemented the algorithm on UN general debate data to get the topics of the debates

Image Classification using Keras — Kaggle

- Build a convolutional neural network using Keras for the classification of Cat and dog images using Python.

Math Parser for class 1-5 students — Parser

- Build a math parser that will classify the mathematical queries into different classes, like general math, equations, logic, and number theory.
- Build an evolution model for solving the math query.

CERTIFICATION

- Launching into Machine Learning
- Deep Learning Specialization
- Machine Learning using TensorFlow on the Google Cloud platform
- How Google does machine learning
- Machine Learning Certification
- Introduction to Python Course
- Natural Language Processing Fundamentals in Python
- Building Chatbots in TPython
- Problem-Solving with Excel