

TANISH RAJ SINGH

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EDUCATION

Manipal University Jaipur: B.Tech in Computer Science and Engineering (2022-26)

BVB Vidyashram Jaipur: 10th - 89% (2019-20), 12th - 80% (2021-22)

SKILLS

Technical Skills : C, Python, SQL, HTML, CSS, JavaScript, PHP, MongoDB

Core Concepts : Data Structures and Algorithms, Object Oriented Programming, Machine Learning, Data Analysis, Problem Solving, Natural Language Processing, Lang Chain

Libraries and Frameworks : Pandas, NumPy, Sklearn, Matplotlib, TextBlob, Streamlit, ReactJS, NodeJS, Flask

Tools : VS Code, Google Collab, GitHub, Jupyter Notebook, MongoDB Compass, MySQL

EXPERIENCE

Machine Intelligence and Data Analytics Intern ([github/IMDB-analysis](https://github.com/IMDB-analysis))

June 2023 - July 2023

RAMAN Lab, Malviya National Institute of Technology Jaipur

Jaipur

- Developed sentiment analysis model on IMDB data using NumPy, Pandas, Nltk and Mapplotlib in Python
- Contributed on optimizing model accuracy by 70% with machine learning techniques
- Enhanced skills in Python, data preprocessing and NLP problem-solving

Front-end Development Intern

May 2024 - July 2024

Vital Skills

Remote

- Built an advanced filtering feature with ReactJS for an e-commerce website
- Developed reusable components with React, reducing load time by 30% and improving search efficiency by 40%
- Designed responsive interfaces with CSS modules, boosting engagement by 25%

PROJECTS

Smart Search Assistant

Developing a multimodal AI-powered application for intelligent information retrieval using Google's Gemini LLM and LangChain. It features a text module with a Transformer model for deep contextual analysis and a PDF module using FAISS and vector embeddings for semantic search across multiple documents. An intelligent web search fallback ensures comprehensive knowledge retrieval and handles out-of-context queries. Delivered via a user-friendly Streamlit web interface.

Tech Stack: Python, LangChain, Transformers, FAISS, NLP, Gemini LLM, Streamlit

GINNIs CART ([github/ginnis-cart](https://github.com/ginnis-cart))

Built an Ecommerce website using ReactJS with an advanced filtering feature to enhance user experience with dynamic and efficient footwear searches. Used react routing and DOM manipulation for the development process.

Tech Stack: HTML, CSS, JavaScript, ReactJS

Built my own HTTP server ([github/my-own-http-server](https://github.com/my-own-http-server))

Engineered a custom HTTP server from scratch using Python running on port 2626 with universal IP accessibility. Implemented secure user authentication with a login page, redirecting to a dynamic home page featuring a server termination function. Integrated a logging mechanism to track server activity, user interactions, and requests for better monitoring and debugging.

Tech Stack: Python, HTML, CSS, JavaScript, Networking

Loan Payment Difficulties Model ([github/loan-payment-difficulties](https://github.com/loan-payment-difficulties))

This project aims to predict whether a client will experience payment difficulties on a loan based on detailed information provided at the time of loan application, as well as data on previous loan applications. Using Python libraries and various machine learning models, we achieved a prediction accuracy of 92% by applying SMOTE to balance the dataset.

Tech Stack: Python, NumPy, Pandas, Sklearn, Seaborn, Matplotlib

CERTIFICATIONS AND PARTICIPATION

- Design and Analysis of Algorithms by IIT Madras | NPTEL
- Supervised Learning: Regression and Classification by Deeplearning.ai | Coursera
- J.P. Morgan Software Engineering Virtual Experience | [Forage](#)
- Accenture UK Developer and Technology Virtual Experience Programme | [Forage](#)
- Data Analysis with Python by University of Pennsylvania | Coursera
- Python Data Structures and Algorithms | Udemy
- Open Source Contributor | Girls Script Summer of Code'24
- Google Cloud Arcade Facillitator Program 2024