AMAN KUMAR

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Education

Vellore Institute Of Technology, Vellore	**Sep. 2020 – July 2025**
Mtech Integrated Data Science	*7.9 cgpa*
Army Public School	**2020**
CBSE XII	*93.8%*

Experience

Western Digital (Sandisk India) — **September 2024 – Present**
AI - ML Intern — *In Office*
- Researching and implementing Optimization techniques for Semiconductor processes.
- Analyse data and identify patterns to develop new methods for bottle neck detection.
- Design and conduct experiments to validate the effectiveness of new detection technologies
- Working on an inhouse chatbot using LLM and RAG .

Valsco Tech — **Dec 2023**
Machine Learning Intern — *Remote*
- Machine Learning Intern at Jurident
- Participated in design discussions and code reviews for the project
- Used multiple hugging face NLP models to contribute to generative AI application.

Projects

TALK to DB(Database) APP | *Streamlit,LLMs,langchain, SQL, Google Palm*
- Create a conversational interface with the Database (DB) App using technologies such as Streamlit, Large Language Models (LLMs), langchain, SQL, and Google Palm, implemented best practices for code optimization and model implementation Conducted unit testing and integration testing to ensure the application's reliability.

FAKE NEWS DETECTION SYSTEM | *TF-IDF, Decision Trees, Gradient Boosting, Random Forest*
- Developed a robust Fake News Detection system using ML algorithms like Logistic Regression, Decision Trees, Gradient Boosting, and Random Forest. Preprocessed and vectorized textual data (TF-IDF) to train models on a large dataset of labelled news articles, achieving high accuracy

REACT COLORS | *React, Material-UI, React Router, react-sortable-hoc, Emoji-Mart*
- Developed a color palette application using React for dynamic UI components, React Router for seamless navigation, and Material-UI for pre-styled, responsive components. Utilized react-sortable-hoc for intuitive drag-and-drop color arrangement and emoji-mart for emoji selection in palette naming. Managed form validation with react-material-ui-form-validator, ensuring unique palette names. The application leverages Webpack and Babel for efficient module bundling and cross-browser compatibility.

CHATBOT | *Html,Css,Bootstrap,Javascript,OpenAI Api*
- Developed a chatbot using HTML, CSS, and JavaScript, leveraging the OpenAI API for NLP. JavaScript handles real-time message processing, user input, and API integration for generating responses. The responsive design, styled with CSS, ensures compatibility across devices,

Technical Skills

Languages: Python, SQL, Java,
Web Technologies: HTML, CSS, JavaScript, React.js, Fast API
Tools: Power BI, MS Excel, Git, Figma, Jupyter Notebook, Anaconda, PostgreSQL
Natural Language Processing (NLP): NLP techniques, NLTK, Hugging Face models, Generative AI
Data Analysis: Pandas, NumPy, Matplotlib, Hypothesis Testing, A/B Testing, Data Wrangling, EDA
Machine Learning: Supervised Learning (Linear Regression, Logistic Regression), Unsupervised Learning, Deep Learning, TensorFlow, Keras, scikit-learn, PyTorch
Soft Skills: Problem-Solving, Communication, Analytical Thinking, Troubleshooting, Attention to Detail
Certifications: Artificial Intelligence Analyst - IBM, Data Science- British Airways, Introduction to Generative AI -(google) , Statistics - Linkedin (Basics),(Probability),(Using datasets)

Extracurricular

Fitness n Beyond — **Feb 2023– Jan 2024**
Core committee member — *VIT Vellore*
- Participated and helped organising Physical fitness events to spread awareness for fitness and also won 2nd prize in under 83kgs Power Lifting