



# PANKAJ

MACHINE LEARNING ENGINEER



## CONTACT



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## Skills

Python, MySQL, PostgreSQL, SQLite, MongoDB

Data Analysis, Numpy, Pandas, Tensorflow, PyTorch, Keras, NLTK, Scikit-learn, CNN, OpenCV, LLAMA 2

Matplotlib, Seaborn, Plotly

Machine Learning, Data Science, NLP, ChatGPT, Prompt Engineer, BERT, HuggingFace APIs LLMs(LangChain)

REST API, GIT, Shell Scripting, Flask, Streamlit

Statistics BeautifulSoup, Probability, Data Visualisation

Linux, Windows, Excel

AWS, GCP, Azure, Docker, Jenkins HTML, CSS



## PROFILE INFO

Focused professional offering nearly 3+ years of experience; targeting assignments as a Data Scientist with an esteemed organization for mutual growth,



## WORK EXPERIENCE



### ML Engineer | Jasper Colin | Sep 2023 - Present

- Engineered customer segmentation using K-Means and Hierarchical Clustering, analyzing purchasing patterns and demographics.
- Implemented PCA for efficient dimensionality reduction, enhancing data analysis.
- Boosted customer engagement by 20% and increased sales by 15% through targeted marketing strategies.
- Developed 'SentimentScope', an NLP project leveraging BERT and OpenAI's LLM, to quantify user sentiment, driving product personalization and improving customer experience.

**Responsibilities:** Devised personalized marketing campaigns using identified customer segments to heighten engagement and sales.

Collaborated with marketing to deliver tailored product recommendations and promotions.

**Tools Used:** Utilized Python, Pandas, NumPy, and Scikit-learn for data analysis and clustering tasks.

Used Matplotlib and Seaborn for clear data visualization of segmentation results. Applied PCA for dimensionality reduction, optimizing data processing efficiency.



### Software Engineer | LTIMindtree

Mar 2021 - Aug 2023

- Devised and implemented over 15 innovative features to enhance user satisfaction by 20%, utilizing Python, Flask, and REST API.
- Enhanced user satisfaction by 20% with 15+ feature implementations using Python, Flask, and REST API.
- Reduced search time by 40% by developing Python documentation sites; skilled in Git, GitHub, and cloud tools.
- Led and mentored a 5-person team, streamlining project onboarding processes.
- Built RESTful APIs for real-time predictions, focusing on scalability and handling high-volume requests.
- Set up monitoring for storage servers, optimizing performance through proactive maintenance and upgrades.



## LANGUAGE

- English
- Hindi



## EDUCATION



2016 - 2020

Bachelor Of Technology  
AKTU



2014 - 2015

Intermediate  
Maharaja Agrasen Inter college



## PROJECTS

### AI-PDF Assistant

- Developed a Python-based PDF comprehension tool with OPENAI's APIs for improved data extraction.
- Integrated HuggingFace's APIs with Langchain to offer accurate, real-time query responses for PDFs.
- Crafted a Streamlit interface for enhanced user interaction and employed PyPDF2 for efficient PDF data handling.

### Sentiment Analysis Web Application

- Engineered and orchestrated the deployment of a high-availability sentiment analysis web application on AWS EC2, utilizing Python, Flask, and advanced NLP techniques to process and analyze over 10,000 tweets with an 85% accuracy rate.
- Trained Machine learning model with analytical skills achieving 87% prediction accuracy. Processed 5000+ tweets, enhancing customer sentiment understanding for targeted marketing.
- Utilized scalable algorithms for efficient data processing on AWS EC2 instance with Linux, integrating Twitter API for real-time data collection

### Customer churn prediction

- Utilized Python for EDA on customer churn data, uncovering behavior patterns. Improved model performance with feature engineering, achieving 15% accuracy boost.
- Developed predictive models (82% accuracy, 88% precision) and presented actionable recommendations to management, reducing churn rate by 5%. Implemented targeted retention strategies for higher customer retention



## CERTIFICATION

Python for Data Science, AI & Development



Applied Plotting, Charting & Data Representation in Python



Data Science Methodology



The Top 5 Machine Learning Libraries in Python



Complete Python programming from Basics to Advance level



National Workshop on "Image Processing and Computer Vision & Application"