



ARKAADEV BASU

Data Analyst / Business Analytics

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## Summary

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I am an MCA graduate with expertise in Python, SQL, Power BI, Tableau, and Excel, utilizing these tools for data analytics and visualization. Proficient in AI, machine learning, data cleaning, and statistical analysis, I derive actionable insights from complex datasets through my academic projects. As a strong communicator, I excel in data storytelling and team collaboration, eager to contribute to innovative data analytics and AI engineering projects.

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## Projects

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### Sentiment Analysis of Social Media Data

02/2024 - 04/2024

- A project analyzing sentiments in social media data to understand user trends and behaviors.
- Developed a machine learning model using Python, NLTK, and Scikit-Learn to perform sentiment analysis on 50,000+ social media posts from platforms like Twitter and Instagram.
- 87% accuracy in classifying sentiments (positive, negative, neutral), improving predictive performance by 12% over baseline models through hyperparameter tuning and feature engineering.
- Enabled insights into user behavior, identifying a 15% increase in positive sentiment around product launches, supporting targeted marketing strategies.

### Customer Churn Prediction for Telecom Business

07/2024 - 09/2024

- A project predicting customer churn to help businesses retain users and optimize revenue.
- Model with machine learning and Python, Scikit-Learn, and XGBoost on a dataset of 100,000+ customer records, incorporating features like usage patterns and contract details.
- Achieved 89% of accuracy in classifying at-risk customers, improving prediction by 15% over baseline logistic regression through feature selection and ensemble methods.
- Delivered insights into churn drivers, such as service complaints leading to a 20% higher dropout rate, enabling proactive retention campaigns and potential revenue savings of 10-15%.

### Supply Chain Optimization Analytics

02/2025 - 03/2025

- Analyzing supply chain data to identify inefficiencies and forecast disruptions for e-commerce businesses.
- Performed EDA and optimization using Pandas, NumPy, and PuLP on a dataset of 500,000+ logistics records, reducing simulation time by 25% with efficient algorithms.
- Uncovered a 0.8 correlation between supplier delays and inventory shortages across 15 vendors, offering recommendations to cut costs by 18%.
- Visualizations with Matplotlib and interactive dashboards, enhancing decision-making for stakeholders and boosting operational efficiency by 22% in simulations.

### Sales Forecasting for Retail Products

04/2025 - 05/2025

- Forecasting model to predict sales for an e-commerce platform selling electronics and apparel, optimizing inventory and marketing strategies.
- Used Python, Pandas, and Prophet to analyze 500,000+ sales records, incorporating seasonality and promotional events, achieving 88% forecast accuracy.
- Identified a 25% sales spike during holiday seasons, enabling optimized stock allocation and reducing overstock.

costs by 15%.

- Interactive dashboards with Power BI, improving stakeholder decision-making by 20% based on user feedback.

## Experience

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### APTECH PVT LTD (Konnagar)

Software Engineer Faculty

Full Time

05/11/2025 – present

- Proficient with C, Java , c++, Python(Basic,pandas,seaborn,matplotlib,pytorch,scikit-learn ,nltk,numpy,Beautifulshop,etc), Advanced Excel, Power BI, PowerPoint, word, HTML, CSS, SQL etc.
- Analyzed large datasets using Python and SQL, delivering insights that improved reporting efficiency by **20%**.
- Dashboards in Power BI enable the tracking of key performance metrics, reducing manual reporting time by **30%**.
- Automated data cleaning workflows, cutting preprocessing time from **3 hours to 45 minutes**.
- Documents: <https://github.com/arkaadevbasu2001-eng>

### YouTube Channel

Content Creator

Part-time

06/09/2025 - Present

- Conducted live projects on data analytics and machine learning, generating **views** and engaging a tech-focused audience.
- Created tutorials on Python and ML, helping learners improve coding efficiency by **15–20%** based on feedback surveys.
- Showcased predictive models with **85%+ accuracy**, sharing reproducible projects with the community.
- Channel: - <https://www.youtube.com/channel/UCBOwtzIX7x0gqV4-jEakGw>

## Skills

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**Programming & Data Tools:** Python (Pandas, NumPy, Scikit-Learn, pytorch, Hugging Face, NLTK, Matplotlib, Seaborn, BeautifulSoup, MechanicalSoup), SQL, Hadoop

**Cloud & ETL:** Azure (Active Directory, Data Factory, Machine Learning), ETL, Data Mining, SAP HANA, Power Query, Databricks

**Visualization & Analytics:** Microsoft Power BI, Microsoft Excel, VBA, Exploratory Data Analysis (EDA), Data Storytelling, NLP, Sentiment Analysis, Web Scraping, Generative AI, Statistical Modelling, Time Series Analysis, Data wrangling

## Education

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Maulana Abul Kalam Azad University of Technology,  
Master of Computer Applications (MCA)

West Bengal

06/2022 - 05/2024

Brainware University,  
Bachelor of Computer Applications (BCA)

West Bengal

06/2019 - 05/2022