



Kushagra Thakral

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SUMMARY

Results-driven **Data Scientist** with hands-on experience in **financial analytics, predictive modeling, and recommender systems**. Skilled in **Python (pandas, scikit-learn, NumPy, TensorFlow), SQL, and Power BI**, with a strong background in transforming raw financial and demographic data into **actionable insights**. Proven ability to design and deploy **machine learning solutions** that drive measurable business impact — from **clustering and recommendation algorithms** to **data visualization and strategic analytics**.

EDUCATION

Indian Institute of Technology, Roorkee (IIT Roorkee)

2017 – 2021

B.Tech - Polymer Science and Engineering - CGPA - 7.2

Roorkee, Uttarakhand

EXPERIENCE

Product Manager, Data Science & Analytics - ICICI Bank

Mar 2021 - Mar 2023

- **Managed a 3-member analytics team**, driving collaboration, learning, and enhanced delivery.
- Built **data pipelines in Python and SQL** to collect, clean, and **preprocess large structured and unstructured datasets**, ensuring reliability and consistency across sources.
- **Automated cleaning and validation routines** that accelerated data readiness for analytics and modeling.
- Developed a **Python based recommender system (JupyterLab)**, applying **unsupervised clustering (K-Medoids)** to segment **5K companies** by key financial and demographic variables.
- Applied **collaborative-filtering** techniques to infer product affinities within each cluster and recommend offerings to new entrants.
- Delivered **actionable insights** that enhanced **lead quality by 35%** and increased **sales conversion rates by 10%**.
- **Conceptualized key metrics** to categorize newly onboarded clients into potential segments, optimising resource allocation and **increasing net new banking profit by 14% YoY**.
- Led **training workshops for 300+ sales members**, boosting **PowerBI adoption by 40%**.
- **Automated Power BI dashboards** delivering monthly Fixed Deposit insights with regional and volume drill-downs, empowering **smarter strategy decisions**.
- Analyzed **key drivers and performance metrics** of the Fixed Deposit product to uncover essential market trends.
- Delivered **data-driven leads** that enabled the sales team to achieve a **20% YoY growth in deposits**.

PROJECTS & INTERNSHIPS

Math Content Expert - Khan Academy — PowerPoint, Adobe Premiere Pro

Jan 2025 - Present

- **Developed 50+ educational video content** simplifying advanced mathematical concepts for official youtube channel and website.

Data Science Repositories - Decodr Solutions — Python, JupyterLab, GitHub

Jun 2020

- Built repositories of Data Science Projects involving knowledge of **Python, Machine learning, Deep learning, and Recommender Systems**.

AI Research Intern - B Aegis Life Science — Python, CNN, JupyterLab, GitHub

Jun 2020

- Developed a **live cough detector** that classifies cough sounds from a variety of surrounding sounds in real-time.
- **Audio files were converted to spectrograms, and further MFCC spectrogram techniques** were used to convert the audio files to images upon which deep learning **model (CNN) was implemented for classification**.

TECHNICAL SKILLS

Languages: Python, SQL, C++

Technologies/Frameworks: Google Colab, Jupyter Notebook, Power BI, Microsoft Office

Additional Courses: Structuring Machine Learning Projects, Neural Networks and Deep Learning, Perform Sentiment Analysis with Scikit-Learn, Introduction to tensorflow for AI, ML and DL, Improving Deep Neural Networks, Feature Engineering and EDA, Statistical Analysis with model evaluation metrics (ROC-AUC)