# Anooshka Bajaj

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# **EDUCATION**

# Master of Science (M.S.) in Data Science

Indiana University Bloomington

August 2024 - May 2026

- Research Assistant (R.A.): Working in Dr. Zoran Tiganj's lab, focusing on in-context learning mechanisms in Transformers. Investigating LLMs interpretability and correlating findings with brain neural activity patterns.
- Courses: Introduction to Statistics, Applied Machine Learning, Applied Database Technologies.

# Bachelor of Technology (B.Tech.) in Bio-Engineering with Minor in Computer Science Engineering Indian Institute of Technology (IIT) Mandi, India August 2019 – May 2023

• CGPA: 8.50 / 10.00

• Relevant Courses: Data Science I (Data Analysis), Data Science II (Probability and Statistics), Data Science III (Machine Learning), Deep Learning and Applications, Applied Biostatistics, Data Structures and Algorithms.

#### **EXPERIENCE**

# **Engineer - Radisys India Ltd.**

July 2023 - June 2024

Bangalore, Karnataka, India

(Intern: July 2023 - November 2023)

- Improved the 5G Network infrastructure by modifying the OAM code base in C++ and Python.
- Handled requests across multiple modules, including Configuration Management (CM) (added YANG model configurations per 3GPP specifications) and Performance Management (PM) (handled performance counters).
- Resolved client requests related to CU (Centralized Unit) and collaborated using BitBucket.

# Data Engineer Intern – Technocolabs Softwares Inc.

July 2022- Sep 2022

Indore, Madhya Pradesh, India (Remote)

- Pre-processed dataset of over 1 million rows in **Python**, performing Exploratory Data Analysis and Feature Engineering
- Created a data warehouse with **BigQuery**. Managed ETL workflows and generated DAGs using **Cloud Composer** built on **Apache Airflow**. Analyzed the data by generating interactive dashboard on Google Data Studio.

#### Research Intern – IISER Bhopal (Dr. Sunando Datta)

June 2022- July 2022

Bhopal, Madhya Pradesh, India

- Assisted PhD students in analyzing 2,212 YAP target genes in the Hippo Signaling Pathway to inhibit tumor growth.
- Produced the dataset by **web scraping** using Selenium, and performed **data visualization** of target genes belonging to 28 gene groups.
- Deployed a Python web app for cell migration analysis from time-series coordinate files using Flask.

### **PROJECTS**

# Skin Cancer Classification App | Deep Learning, CNN, Flask

- Developed a web application to predict and classify skin cancer types from dermatoscopic images uploaded by users, utilizing **Convolutional Neural Networks.**
- Trained the Deep Learning model on the HAM10000 dataset to classify skin cancer into one of 7 categories.
- Enhanced model accuracy by evaluating over different architectures and implementing three regularization techniques, resulting in a final deep learning model integrated into an efficient **Flask**-based web application.

# Data Analysis and Visualization | SQL, MySQL, Tableau

- Generated an interactive dashboard in **Tableau** to visualize placement statistics from 23 colleges.
- Imported and managed raw CSV files from Kaggle in MySQL, using SQL queries to extract and analyze key trends.
- Integrated the data into Tableau for real-time visualization and insightful analysis.

# Audio Summarizer App | NLP, LLM, Streamlit

- Developed an audio summarization web application using OpenAl's **Whisper** model for transcription and Hugging Face's **Transformers** (t5-small) for generating concise summaries.
- Built a Streamlit-based interface with PyTorch integration for efficient processing of WAV/MP3 audio files.

#### TECHNICAL SKILLS

Programming Languages: C++, Python, R, MATLAB

Development Tools & IDEs: Jupyter Notebook, Visual Studio Code, Spyder Databases & Data Management: SQL, MySQL, PostgreSQL, Tableau Frameworks & Libraries: Git, Keras, TensorFlow, PyTorch, Flask

Certifications: Intermediate Machine Learning, Feature Engineering: Kaggle. MATLAB Onramp: Mathworks.