# Arjit Bhardwaj

Bangalore, Karnataka, India

#### **EDUCATION**

# Dayananda Sagar College of Engineering

December 2021 - August 2025

Bachelor of Engineering in Computer Science and Engineering (CGPA-9.4/10)

Bangalore, Karnataka

#### TECHNICAL SKILLS

Competencies: Machine Learning, Computer Vision, Generative AI, Transformers, Data Analytics, Data Visualization

**Programming Languages**: Python, SQL, R, C++, Java, C

Tools & Frameworks: PyTorch, Langchain, Airflow, Kafka, MS Excel, Tableau, PowerBI, Git/GitHub, Linux

#### **EXPERIENCE**

# **Indian Space Research Organisation (ISRO)**

April 2024 - Present

Deep Learning Intern

Bangalore, Karnataka

- Leveraging remote sensing satellite imagery for agricultural planning of 44 different crops.
- Integrating the DSSAT Crop Simulation models with the geospatial data analytics platform QGIS.

## **Indian Institute of Technology Hyderabad (IIT-H)**

November 2023 - February 2024

Research Intern

Hyderabad, Telangana

- Contributed to Autonomous Navigation System enhancement through causality-informed semantic segmentation methods.
- Experimented Causal Attention with various models such as UNet, Vision Transformer, DeepLabv3, Segformer.
- Achieved an accuracy of 78.37% using CNN based approach and of 58.85% using ViT based approach.

## **Kharagpur Winter of Code (KWoC)**

December 2023 - January 2024

Open Source Contributor

Kharagpur, West Bengal

- Contributed to ML-Crate, a valuable resource for machine learning enthusiasts and the Bellabeat Capstone Project by Google.
- Conducted in-depth data analysis using various machine learning algorithms to derive insights for the Bellabeat project.
- Achieved an accuracy of 88.02% using Logistic Regression and of 87.87% using Support Vector Machines.

Lean Angels October 2022 – March 2023

Data Engineer Intern

Bangalore, Karnataka

- Collaborated closely with the core tech team, championed seamless integration of the analytics model with our API.
- Employed Python to automate retrieval processes through restructuring ETL pipelines, boosting the efficiency by 12%.
- Enhanced customer satisfaction by 5% by turning raw data into actionable insights, improved data-driven decision-making.

#### **PROJECTS**

#### Ask your Database | Python, Langchain

- This project aims to simplify database querying and SQL generation through natural language interaction.
- An interactive chat application that allows you to query your localhost MySQL or PostgreSQL database using natural language.
- A tool that accepts English prompts and returns the corresponding SQL queries.

# Semantic Segmentation using ViT | PyTorch

- This project focuses on semantic segmentation of aerial imagery obtained from MBRSC satellites over Dubai.
- Implemented pixel-wise semantic segmentation over 6 classes using Vision Transformer (ViT) and UNet architecture.
- Achieved a mean Intersection over Union (mIoU) of 0.27, signifies a moderate level of performance in segmenting urban scenes.

#### **Gesture Volume Control** | *Python, OpenCV, Mediapipe*

- A Computer Vision project that track hand movements and change the volume of your system by using hand gestures.
- The project uses OpenCV and Mediapipe to track hand movements and identifying 21 hand landmarks defined by Google.

#### **Binary Classification for Bank Churn** | Python, XGBoost

- This project aims to predict whether a customer continues with their account or closes it (e.g., churns).
- Developed a predictive model utilizing XGBoost to forecast customer churn, achieving an accuracy of 89.21%.

### **ACCOMPLISHMENTS**

- Kaggle Expert
- Google Data Analytics Professional Certificate