# ASHIRWAD SINHA

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## OBJECTIVE

Motivated MCA student at Thapar Institute of Engineering and Technology with a strong foundation in programming, artificial intelligence, and computer vision. Proficient in C++ and Python, with a passion for solving real-world problems through innovative tech solutions. Continuously learning and driven to build impactful, practical applications.

## EDUCATION

**Master of Computer Applications**                                       2024 - Present
Thapar Institute of Engineering & Technology

**Bachelor of Computer Applications**                                        2020 - 2023
Patliputra University, Patna

## TECHNICAL SKILLS

**Programming Languages:** C/C++, Python, SQL.

**Machine Learning & Deep Learning:** PyTorch, Scikit-learn.

**Data Management & Analysis:** MySQL, Pandas, NumPy, Data Visualization (Matplotlib, Seaborn).

**Tools & Platforms:** Git, VS Code, Jupyter Notebook, Google Colab, Hugging Face Spaces, AWS (basic).

## SOFT SKILLS

- Analytical Thinking, Problem Solving, Teamwork, Leadership, Attention to Detail, Communication

## PROJECTS

**Food-101 Classifier** | Python, PyTorch, Vision Transformer (ViT-B/32), Gradio, Hugging Face Spaces      2025
- Fine-tuned ViT-B/32 on the Food-101 dataset (101 classes, 101K images), achieving 80.97% Top-1 accuracy with a custom classification head and robust preprocessing pipeline.
- Deployed as an interactive Gradio Web App on Hugging Face Spaces with device-agnostic inference for real-time food image classification.

**Sales Data Analysis** | Python, Pandas, NumPy, Seaborn      2025
- Performed data cleaning, preprocessing, and exploratory analysis on sales datasets to identify revenue trends, seasonal patterns, and product performance.
- Generated interactive and publication-quality visualizations with Seaborn and Matplotlib to present actionable business insights.

**Dog Breed Classifier** | Python, PyTorch, ResNet-50, Gradio, Hugging Face Spaces      2025
- Fine-tuned ResNet-50 on 17,486 images (13,934 train / 3,552 val; 157 breeds), achieving 90.71% validation accuracy.
- Deployed an interactive Gradio demo on Hugging Face Spaces; implemented device-agnostic pipelines, checkpointing, LR scheduling and staged unfreezing for robustness.

**Driver Gaze Detection System (In Progress)** | Python, PyTorch, OpenCV, NumPy      2025
- Designed and implemented the model architecture (BaseGazeModel & SimpleEyeEncoder); authored the network and forward logic.
- Collaborated on data integration and experiments - team implemented dataset splitting, DataLoaders, and training/testing pipelines (113,134 train / 3,399 val / 3,719 test).

## CERTIFICATIONS

- **PyTorch for Deep Learning Bootcamp** — Udemy (Aug 2025)
- **Introduction to Applied Data Science with Python** — Simplilearn SkillUp (2025)