GAURAV KUMAR

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Summary

Machine Learning Engineer specializing in Deep Learning, Computer Vision, and Predictive Analytics. Proven ability to build end-to-end solutions, including a Convolutional Neural Network (CNN) for eye disease classification that achieved 97.21% accuracy and an XGBoost model for sales forecasting. Proficient in the complete ML lifecycle, from data preprocessing and feature engineering to model evaluation. Eager to apply a strong foundation in algorithms to solve complex, industry-relevant problems as an upcoming AI/ML Intern at Infosys.

Technical Skills

Programming Languages: ,C++, HTML,CSS, Python(Intermediate),JAVA(basics),SQL,JAVA SCRIPT,MATLAB

AI & Machine Learning:

- **Libraries & Frameworks:** Scikit-learn, Pandas, NumPy, TensorFlow, Keras, XGBoost, Matplotlib, Seaborn
- **Concepts:** Deep Learning, Computer Vision, Predictive Modeling, CNNs, Feature Engineering, Data Preprocessing

Backend & Databases : MySQL, MongoDB

Developer Tools & Web: Git, GitHub, React.js, HTML, CSS

Projects

HUMAN EYE DISEASE PREDICTION *June 2025 – Aug 2025*
Academic Project, VIT Bhopal University *Bhopal, MP*

• Engineered a deep learning system using Convolutional Neural Network (CNN) architectures (**MobileNetV3**, **ResNet50**, **EfficientNetB0**) for the automated classification of retinal diseases like **Choroidal Neovascularization (CNV)**, **Diabetic Macular Edema (DME)**, and **Drusen** from **Optical Coherence Tomography (OCT)** images.

• Achieved a peak classification **accuracy** of **97.21%** and an **F1-Score** of **0.9722** with the **EfficientNetB0** model , creating a robust tool for early diagnosis that enhances diagnostic speed and improves patient outcomes.

Big Mart Sales Forecasting Jan 2025 – Mar 2025
Predictive Analytics Project

• Engineered a data preprocessing pipeline using **Pandas** and **NumPy** to perform data cleaning, implement imputation strategies for missing values, and conduct **feature engineering** with **Scikit-learn's** LabelEncoder.

•Implemented a gradient boosting model using the **XGBoost Regressor** to predict sales outcomes, validating its performance against unseen data to achieve an **R-squared score of 0.58**.

Experience

Virtual AI/ML Intern Oct 2025 – Dec 2025 (Upcoming)
Infosys Remote

• To gain hands-on experience across the full machine learning lifecycle, including data preprocessing, model development, and performance evaluation.

• Will apply modern deep learning frameworks and algorithms to architect and prototype solutions for complex, industry-relevant problem statements.

Education

VIT Bhopal University Bhopal, MP
B-TECH in Computer Science *Sep 2023 – May 2027*
• Current GPA is **8.40**

CERTIFICATIONS

- NPTEL – Machine Learning (IIT course)
- MERN Full Stack Development by Ethnus

ACHIEVEMENTS

- **Top 11% Finish in Grab Hackathon:** Advanced to the second round, placing our team among the top 500 out of an initial 4,539 competing teams.
- **NASSCOM Hackathon Finalist:** Qualified for the second round and am currently developing an innovative AI agent to solve the competition's core challenge.
- **Algorithmic Proficiency:** Demonstrated advanced problem-solving skills by successfully solving over 350 Data Structures and Algorithms problems on platforms like LeetCode ,GeeksforGeeks and Codeforces .