# PRATHAM AGARWAL

Meerut, Uttar Pradesh

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# **Education**

### Dewan Public School International (CBSE Board), Meerut

10th - 91% 12th - 94.8% 2020 2022

Bennett University, Greater Noida

2022-2026

BTech Computer Science - CGPA 8.6(till 6th Sem)

# Work Experience

Data Science Intern 1 Jul 2024 – 1 Aug 2024

Bennett University, Under the guidance of Prof. Mala Sarwaswat

- Contributed to the project "Explainable AI Scene Classification and GradCam Visualization."
- Applied machine learning models for image classification and implemented GradCam for visual explanation.
- Gained expertise in handling varied image sizes, data augmentation, and normalization techniques to reduce bias.
- Utilized Python, TensorFlow, and OpenCV to analyze datasets and improve model performance.

#### Skills

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

Frameworks & Libraries: TensorFlow, Keras, Scikit-Learn, Pandas, NumPy

Tools & Technologies: Excel, MySQL, Power BI

Core Competencies: Data Analytics, Machine Learning, Deep Learning, Computer Vision Soft Skills: Problem Solving, Analytical Thinking, Team Collaboration, Communication

## **Projects**

- Designed and implemented a multiple disease prediction system for breast cancer, diabetes, liver diseases, heart diseases and detection of Gastrointertinal disease by images using CNN.

- Utilized machine learning and deep learning algorithms such as CNN, decision trees, logistic regression, SVM, KNN, and MLP.
- Processed and analyzed healthcare data to provide predictive insights for patients, focusing on optimizing model accuracy and promoting proactive health management.
- Improved expertise in machine learning, healthcare data analysis, and model evaluation.

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Jan 2025 – Mar 2025

- Analyzed the evolution of public interest in major sports leagues over time using Google Trends data to extract real-time and historical user behavior patterns.
- Implemented time series forecasting models including ARIMA and SARIMA to predict future popularity trends.
- Enabled broadcasters, marketers, and stakeholders to make data-driven decisions based on popularity forecasting insights.
- Gained hands-on experience in time series analysis, model tuning, and visualization of trend forecasting results.

# Research Paper - Early Detection and Classification of Alzheimer's Disease with Grad-CAM Explainability 🥎 github

- Classified Alzheimer's Disease into four stages (Non-Demented, Very Mild Demented, Mild Demented, Moderate Demented) using MRI scan data.
- Implemented and compared multiple models: K-Nearest Neighbors (KNN), Ensemble Model, Combined CNN Model, and CNN with Fine-Tuning (achieved 95% accuracy).
- Applied Grad-CAM visualization to provide explainability by identifying important MRI regions influencing predictions.

# Certifications

- Exploratory Data Analysis for Machine Learning IBM (Coursera)
- Supervised Machine Learning: Regression IBM (Coursera)
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization DeepLearning.AI (Coursera)