

Kushagra Agrawal

Data Scientist

✉ kushagraagrawal128@gmail.com in [LinkedIn](#) [Portfolio](#) ☎ 9099151369 🌐 [GitHub](#) 📍 Surat, Gujarat

PROFILE

I am a budding Data Scientist with hands-on experience in Artificial Intelligence, Machine Learning, Computer Vision, and Generative models. Actively building applications of AI Agents with proven ability to prototype end-to-end solutions—from data ingestion through model deployment.

SKILLS

Languages & Tools: Python, MySQL, LangChain, FastAPI, TensorFlow, PyTorch, OpenCV

Core Skills: Machine Learning, Deep Learning, Generative AI Computer Vision, Statistics

Dev Tools: Git & GitHub, Docker, MLflow, Postman, Firebase

Soft Skills: Problem Solving, Communication, Documentation, Team Collaboration

PROJECTS

NexusAgent.ai [Platform Link](#)

- **Built a comprehensive interview preparation agent** integrating Google AI SDK and Vapi AI for intelligent voice-based mock interviews with real-time responses.
- **Implemented Vapi Web SDK** for seamless voice interactions, that simulate realistic interview scenarios with live speech recognition and response generation
- **Designed secure backend infrastructure** using Firebase Firestore for data management, Firebase Auth for user authentication, and Firebase Admin for server-side operations.
- **Developed an AI feedback engine** using Google Gemini 2.0 that analyses interview transcripts and generates detailed performance insights, improvement suggestions, and personalized recommendations.

Vision Play [GitHub Link](#)

- **Developed a computer vision-based system** using YOLO-based object detection to track and analyze object movement in videos.
- **Implemented camera movement estimation and perspective transformation** to accurately measure object positions in real-world coordinates.
- **Designed an advanced tracking system** to compute the **speed and distance** of moving objects using frame-by-frame analysis.
- **Optimized the pipeline for efficiency**, leveraging **OpenCV, NumPy, and YOLOv8**, ensuring real-time processing of sports and surveillance footage.

NetworkSecurityDetection [GitHub Link](#)

- **Designed and implemented a robust ML pipeline to detect phishing websites** using scikit-learn, achieving efficient data preprocessing, model training, and evaluation.
- Built a custom exception handling system for better debugging and error traceability, ensuring smooth functionality across the project. Conducted EDA on **5,000+ samples; engineered 30+ features**.
- Processed and validated structured data using YAML schema, ensuring accuracy and consistency of 30+ features for model input **with 95% accuracy in phishing detection using ML**.
- Conducted tuning using GridSearchCV, improving model performance & precise evaluation metrics - R^2 scores.

EDUCATION

Bachelor of Computer Applications (BCA)

2024 – 2027

Amity University, Noida — CGPA: 9.08

Noida, Uttar Pradesh

- Relevant Coursework: Algorithms, Data Structures, DBMS, Linear Algebra, Fuzzy Logic, Big Data

Schooling – Agarwal Vidya Vihar, Surat;

2012 – 2024

- Relevant Coursework: Python Programming, Probability, Applied Statistics, Communication, Ethics

Surat, Gujarat

CERTIFICATIONS

- Deep Learning Specialization – DeepLearning.AI
- Generative AI for Everyone – DeepLearning.AI
- Python for Data Science, AI & Development – IBM

Publications

- My Data Science Learnings So Far (11/2024) [Link](#)
- Struggles in My Data Science Journey (08/2024) [Link](#)
- My Journey into the World of Data (08/2024) [Link](#)

INTERESTS

Reading Books | Writing Tech Blogs | Traveling | Playing Badminton | Chess
