

Kshitij Chaturvedi

Data Scientist | ML Engineer

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EDUCATION

Guru Gobind Singh Indraprastha University (ADGIPS), Delhi

B. Tech. (Electronics and Communication Engineering): Overall GPA - 8.9 (7th Sem.)

2021 - Present

Hansraj Model School, New Delhi

12th (Physics, Chemistry, and Mathematics): Percentage - 84%

2020 - 2021

10th: Percentage - 88%

2018 - 2019

WORK EXPERIENCE

Creative Ai Solutions [NYNEXA]

(April 2024 - May 2024)

Backend Developer (Intern)

- Developed initial backend architecture for an AI/Web3 Marketplace, boosting system efficiency by 20% using AI dev tools.
- Established a scalable backend foundation with **NextJS**, **Tailwind CSS**, **MonoRepo - TurboRepo**, **MongoDB** & **Prisma**

SynthHeim [Radian Arc]

(Feb 2024 - Aug 2024)

SDE Intern

- Contributed to developing an AI-driven health application using Machine Learning & NLP.
- Utilizing libraries like **Numpy**, **Pandas**, **Scipy**, **Scikit-Learn**, **TensorFlow**, **SpaCy**, **NLTK**, **Open-Ai** & **Flask**
- Led a team of 8 developers to implement a virtual AI assistant for real-time personalized and multilingual responses.

PROJECTS

Cloudy (A heavy rainfall & cloudburst prediction system)

- Designed and implemented a prediction pipeline using LSTM, GRU, and CNN models with advanced data reprocessing (DateTime transformations, Cyclic & Seasonal features, Rolling mean & Sliding window) on historical and real-time data.
- Integrated hardware (ESP32 with DHT11 & beta rain sensor) to collect real-time weather data.
- Leveraged tools: **TensorFlow**, **Keras**, **Scikit-learn**, **Pandas**, **Matplotlib** and **DVC** for model and prediction pipeline management & **Flask** and **Docker** for model deployment.

Coccidiosis Detection in Chickens

- Implemented transfer learning approach, using a CNN-based system for disease classification using fecal images, leveraging the VGG16 pre-trained model for improved accuracy.
- Designed an automated pipeline workflow with logging, **YAML** configurations, **DVC**, **Docker** and **CI/CD** via **GitHub Actions**
- Tools used: **Numpy**, **Pandas**, **Scipy**, **Matplotlib**, **Seaborn**, **TensorFlow**, **Keras** and **Flask** to build a scalable and efficient classification framework.

Facial Emotion Detection

- Developed a real-time emotion detection application using CNN with a custom architecture for feature extraction and classification, utilizing FER2013 dataset preprocessing with ImageDataGenerator.
- Implemented the face detection system with OpenCV's Haar Cascade for real-time emotion prediction and visualization.
- Tools & frameworks used: **Numpy**, **Pandas**, **Scipy**, **Matplotlib**, **TensorFlow**, **Keras**, **OpenCV** and **Flask** to build a scalable and efficient classification framework.

SKILLS

- Programming Languages:** Python, JavaScript.
- Object Oriented Programming, DBMS, Data Structures & Algorithms, Computer Networks.**
- Ai:** Data Analytics, Visualizations and Preprocessing, Machine Learning and Deep Learning, Computer Vision.
- Frameworks & Libraries:** NumPy, Pandas, Matplotlib, Seaborn, Scipy, Scikit-Learn, Tensorflow, Keras, PyTorch, OpenCV, Flask, FastAPI, ReactJS, Tailwind CSS.
- Tools & Technologies:** MySQL, MongoDB, Version Control (Git, GitHub), MLOps (DVC, Docker), Microsoft Excel.
- Soft Skills:** Effective Communication, Time Management & Attention to Detail.

ACADEMIC ACHIEVEMENTS

- Judged and Mentored BVP Hex Hackathon - Nov'24
- IBM Certified: Artificial Intelligence Analyst.
- Deeplearning.ai Certification by Andrew NG: Machine Learning Specialization in Supervised ML, Advanced Learning Algorithms, and Unsupervised ML.
- Top 10 Teams in HackMait-22 by MAIT and EmpowHer Hack by IEEE-IIIITD. Additionally, Top 25 Vihan-2.0 by IEEE-DTU-23.
- Held leadership roles as Management Head in ECELL-ADGITM and Instrumental Head in Swaranjali-ADGITM.