

Sahil Shighra

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A passionate data scientist, I leverage my expertise in machine learning and deep learning to extract valuable insights from complex data. Fueled by a desire to drive impactful business decisions while possessing excellent communication and collaboration skills to work efficiently under pressure while maintaining a professional demeanor, I stay at the forefront of the field, employing cutting-edge techniques to craft innovative solutions. My proven ability to translate complex data into actionable recommendations ensures clear communication across all levels.

EDUCATION

Amity University Uttar Pradesh

Bachelor of Technology in Bioinformatics

- **CGPA:** 8.76

Noida, Uttar Pradesh

2024

Delhi Public School

CBSE 10+2

- **Score:** 91.4%

Patna, Bihar

2020

EXPERIENCE

Motherson Technology Services

Noida, Uttar Pradesh

Data Science Intern

Jan 2024 – Present

- Learning and implementing cutting-edge generative AI models and LLMs.
- Contributed to innovative natural language processing research.

AI and Automation lab, Amity University

Noida, Uttar Pradesh

AI&ML Intern

Apr 2022 - Jan 2024

- Learning and implementing coding practices and standards.
- Writing, testing code and staying up-to-date on new technologies and trends.

Yashoda Super Specialty Hospital

Ghaziabad, Uttar Pradesh

Radiology Intern

Jun 2023 - Jul 2023

- Developed a CNN model, leveraging deep learning techniques to analyze chest scans for better detection of pneumonia.
- Explored the integration of additional medical imaging modalities, such as MRI and CT scans, to broaden the scope of the AI-powered diagnostic tool.

PROJECTS

Leveraging Generative AI for Advanced Chatbot Systems

- Employed state-of-the-art generative AI techniques, including LLMs and RAG architecture, to create a highly responsive and informative chatbot system.
- Designed the chatbot to leverage retrieved information alongside its own generative capabilities, resulting in more comprehensive and contextually relevant responses.
- This project encompasses natural language processing (NLP), generative AI techniques, and building engaging and informative conversational interfaces.

Learning Based Approach with Deep Neural Networks for Smart Systems (LADS)

(Associated with Dr. Ritu Chauhan, Asst. Prof. Amity Institute of Biotechnology)

- Designed and trained a CNN model to accurately classify waste items into biodegradable and recyclable categories using image recognition.
- Utilized Python for model development and TensorFlow as the deep learning framework, showcasing expertise in cutting-edge technologies.
- This project demonstrates strong skills in computer vision, deep learning model development, and applying AI solutions to real-world environmental challenges.

Pneumonia Risk Evaluation and Detection model using CNN (PRED- CNN)

(Associated with Summer Internship at Yashoda Super Speciality Hospital)

- Developed a convolutional neural network (CNN) model using TensorFlow to predict pneumonia from chest X-ray images, achieving high accuracy in diagnostic performance. Collaborated closely with medical professionals to ensure the clinical relevance and accuracy of the AI-based pneumonia detection system.
- Led the end-to-end development of the machine learning pipeline, from data preprocessing to model deployment, ensuring robustness and efficiency.
- Designed and implemented intuitive user interfaces using Flask and HTML/CSS, facilitating seamless interaction with the AI-powered healthcare solution.

TERM PAPERS AND PUBLICATIONS

- Efficient Future Waste Management: A Learning Based Approach with Deep Neural Networks for Smart Systems (LADS)
 - <https://www.mdpi.com/2076-3417/13/7/4140> Aug 2022
- Artificial Intelligence and Machine Learning Algorithms for Enhanced Healthcare
 - Pneumonia Risk Evaluation and Detection model using CNN (PRED- CNN) Jun 2023
- AI-Powered Healthcare Automation: Improving Efficiency and Streamlining Processes
 - Neurological Screening CNN for Alzheimer's and Neurodegeneration (NeuroSCAN) Ongoing

TECHNICAL SKILLS

Programming Languages and Frameworks: Python, Numpy, Pandas, Scikit-Learn, Pytorch, TensorFlow, Flask, NLP, Generative AI, LLMs, Java, C, C++, R, SQL, MongoDB.

Data Analysis & Manipulation: Data wrangling and cleaning, Exploratory Data Analysis (EDA), Feature Engineering and Selection.

Machine Learning: Supervised And Unsupervised Learning, Model Selection and Evaluation.

Deep Learning: Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs), Computer Vision, LSTM.

ACHIEVEMENTS

- CyberCup Hacathon 2023 Jan 2023
3rd Position
- HackFest 2023 Jun 2023
5th Position

LEADERSHIP ROLES

- Praedictio - The Bioinformatics Club of Amity Institute of Biotechnology Aug 2021 - Aug 2023
Vice President
- Amity Youth Fest Mar 2023
Technical Team Lead