SEMAL JOHARI

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EDUCATION

Gautam Buddha University, Greater Noida, UP *August, 2021 – May, 2025*
BTech in CSE with Specialization in Machine Learning *(CGPA: 9.46)*

TECHNICAL SKILLS

Languages: Python, SQL, HTML-CSS, R, JavaScript, Dart, C
Frameworks: Flask, Numpy, Keras, TensorFlow, Streamlit, Scikit-Learn, Matplotlib, PyTorch, OpenCV, SciPy, Seaborn, Pandas, BeautifulSoup, Sweetviz, HuggingFace, FastAPI, Django
Softwares & Tools: Power BI, Git & GitHub, VS Code, PyCharm, Jupyter Notebook, Google Colab, Microsoft Excel, MATLAB
Cloud Platforms & MLOps: Microsoft Azure, Google Cloud Platform, Amazon Web Services, Weights & Biases

WORK EXPERIENCE

PurpleME India OPC Pvt Ltd *New Delhi, Delhi*
Data Analyst Intern *November, 2024 – Present*

- Working on analyzing financial and sales data of the company's business clients by leveraging advanced Microsoft Excel techniques and Power Query and developing data analytics dashboards using Microsoft Power BI and Tableau.

Stillsweb Technologies Pvt Ltd *Noida, UP*
Image Processing & AI Intern *June, 2024 – September, 2024*

- Worked on multispectral data from satellites like Sentinel-2 and LandSAT for the estimation of the local climate, vegetation indices and soil types in different farms to derive patterns for the types of crops grown due to the given factors for developing a recommendation engine to assist farmers in selecting the crops to grow in specific regions.
- Leveraged the derived patterns and demonstrated the results through a data analytics dashboard. Primary responsibilities included Spatial Data Research, Data Collection and Assessment, Crop Health Analysis and Vegetation Indices analysis.

Omnipresent Robot Technologies Pvt Ltd *Greater Noida, UP*
Machine Learning & IoT Intern *July, 2022 – August, 2022*

- Worked on developing a software for an Indoor Autonomous Warehouse UAV using Computer Vision, Drone Technology, Deep Reinforcement Learning and IoT technology for drone navigation, perception and control.
- Utilized various Python frameworks like PyTorch and OpenCV for 3D mapping from 2D objects in the drone's unknown environment and for object recognition and detection.

PROJECTS

Chess AI Engine | *GitHub* *November, 2024 - Present*

- This Reinforcement Learning application, built from scratch using Pygame framework of Python, is a Chess Engine trained using implementation of advanced algorithms like Minimax with Alpha-Beta Pruning for strategic decision-making.
- Its key features include the basic rules of chess – move generation for each piece, their validation, pawn promotion, En Passant, Kingside and Queenside Castling, Checkmate and Stalemate and a display of Move logs using chess notations. Currently working on improving the user interface by adding a menu for flipping the board, choosing the piece for pawn promotion, mouse drag and the engine by adding a 50 move and 3-time repetition rule for Stalemate and adding a database for openings and endgames.

JARVIS – Voice Assistant | *GitHub* *October, 2024*

- This application is a robust voice assistant designed to run on the local machine, inspired by the JARVIS voice assistant from the Marvel Universe. It utilizes facial authentication for secure access to the application and listens for specific trigger phrases (hot words) to activate or turn off the voice assistant.
- Its core features include providing intelligent responses to user inquiries through a chatbot interface, opening websites seamlessly in the default browser, initiating applications installed on the local machine, playing videos directly from YouTube, sending messages to contacts via WhatsApp or SMS and making phone calls through WhatsApp or from the mobile device.

Autonomous Vehicle Perception | *GitHub* *September, 2024 - October, 2024*

- This Machine Learning Project has been made for demonstrating Machine Learning Operations (MLOps) for Semantic Segmentation on BDD100K dataset using Weights and Biases dashboard. The dataset contains thousands of images of self-driving cars. The aim of this project is to perceive the object in front of the car, be it traffic light, road, vehicle or a person.
- The model is then optimized through hyperparameter tuning and evaluated using individual IOU (Intersection over Union) scores. The results of the model training, optimization and evaluation through individual reports, along with the details of job and sweep runs are given at *Weights and Biases Workspace*.

POSITIONS OF RESPONSIBILITY

Microsoft Learn Student Ambassadors – GBU | Cloud Computing Team Lead *September, 2024 – Present*
CodeChef GBU Chapter | Community Lead *April, 2023 – March, 2024*

ADDITIONAL INFORMATION

Certifications: Microsoft Certified: Azure Data Scientist Associate by Microsoft, Career Essentials in Generative AI by Microsoft and LinkedIn, Artificial Intelligence Virtual Experience Program by Cognizant, SQL (Advanced) by HackerRank, AWS Knowledge: Cloud Essentials by AWS, Data Analytics and Visualization Job Simulation by Accenture, Machine Learning with Python by IBM

Achievements: First Position in Microsoft Azure Blogathon by ID8NXT and Microsoft Azure, LinkedIn Top Data Science Voice, 5 Star Rating on HackerRank for Python and SQL