Chandra Rup Daka

+1 253-632-3181 chandrarupdaka@gmail.com https://www.linkedin.com/in/chandra-rup-daka/
https://github.com/chandrarup

Professional Summary

Generative AI Engineer with 2+ years of experience designing and deploying production-grade LLM and agentic solutions across enterprise environments. Skilled in NLP, Deep Learning, and Retrieval-Augmented Generation (RAG) systems, with a proven track record of delivering intelligent systems at scale.

Education

University of Houston **Expected 2027**
M.S. in Engineering Data Science and Artificial Intelligence

Amrita Vishwa Vidyapeetham **2023**
B.Tech in Computer Science and Engineering (Specialization in Artificial Intelligence)

Experience

Accenture (GenWizard Platform)
Advanced App Engineering Analyst - GenAI SpecialistArchitected production-grade LLM solutions for reverse engineeri

Amrita Vishwa Vidyapeetham
Undergraduate Research Assistant Developed deep learning framework for deepfake video detection achieving 96% accura

Accenture
Technical Mentor and TrainerConducted training sessions on Python, agentic AI frameworks (LangChain, AutoGen, Cr

Projects

Detection of Real and Manipulated Videos using Transfer Learning — *Python, TensorFlow, ResNet, Xc*

- Developed deep learning framework for deepfake detection achieving 96% accuracy on 6,500-video dataset. Published in GCAT October 2024.

Indian Sign Language Generation from Live Audio/Text (Tamil) — *Python, NLP, Computer Vision, Bi*

- Real-time speech-to-sign translation system for Tamil-speaking hearing-impaired community. Published in ICACCS March 2023.

Multi-Agent Deep Reinforcement Learning for Highway Merging — *Python, Keras, DQN, DDQN, CNI*

- Autonomous vehicle on-ramp merging solution using DQN/DDQN with CNN-based policy network, Experience Replay buffers, and complex reward function balancing safety and efficiency.

Stock Price Prediction Using Deep Q-Learning — *Python, Deep Reinforcement Learning, DQN, Tensor*

- Automated trading system learning optimal policies (Buy, Sell, Hold) using DQN with Experience Replay and dual-network architecture. Tested on Adani Enterprises stock data.

Speech Emotion Recognition System — *Python, CNN, librosa, RAVDESS Dataset*

- CNN-based emotion recognition achieving 81.11% accuracy. Implemented acoustic feature extraction (MFCCs, chroma, mel-spectrograms, tonnetz).

Telugu News Article Classification — *Python, Word2Vec, LSTM, RNN, Bi-LSTM, NLP*

- Low-resource NLP solution with custom Word2Vec embeddings for Telugu corpus. Achieved 82% accuracy with Bi-LSTM model.

– Real-time social distance violation detection using YOLOv3 with Euclidean distance computation and automated CCTV monitoring pipeline.

Hand Gesture Controlled Robotic Arm — *Arduino, Bluetooth (HC-05), Flex Sensors, MPU6050, PCA*

– Gesture-based human-machine interface with Master-Slave control system. Wireless robotic arm control using natural hand movements.

Handwritten Character Recognition using HMM — *Python, Hidden Markov Models, Viterbi Algorithm*

– Machine learning model translating scanned handwritten documents to digital text. Achieved 99.9% accuracy using Viterbi algorithm.

Real-Time Ball Tracking and Trajectory Analysis — *Python, OpenCV, Computer Vision, Deque*

– Automated object tracking for sports analytics with HSV color space conversion. Achieved 32+ FPS with 3D trajectory visualization.

Number Writing Robotic Manipulator — *Python, ROS, MoveIt!, URDF, RViz*

– Robotic manipulator performing precision writing tasks using ROS and MoveIt! framework with custom URDF model.

Operating Systems Chat Room Application — *C, IPC, Semaphores, Multithreading, Shared Memory*

– Real-time messaging application implementing OS concepts: IPC, process synchronization, and mutex locks for race condition prevention.

Predictive Text Generator using Markov Chains — *Python, Markov Chains, NLP, Probability Models*

– Predictive text application using Markov Chain theory for stochastic text generation. Evaluated trade-offs with LSTM-based approaches.

Skills

Languages: Python, SQL, Java, C++, C

Tools: Docker, Git, ROS, OpenCV, Arduino IDE, Jupyter, VS Code, MoveIt!, RViz, Gazebo

Frameworks: TensorFlow, PyTorch, Keras, LangChain, AutoGen, CrewAI, FastAPI, Flask, Hugging Face Transformers, Scikit-learn