SHARMILA EDAY

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Education

Master of Science in Artificial Intelligence | GPA: 4.00/4.00   **May 2026**

University of North Texas, USA

Coursework: Fundamentals of Artificial Intelligence, Software Development of Artificial Intelligence, Empirical Analysis and Statistics, Advanced Data Analytics, Predictive Analysis, Transformer Architecture, Data Science, Machine Learning, Computer Vision, Scientific Data Visualization, Time Series Analysis, Big Data, Neural Networks, Deep Learning, Natural Language Processing, LLMs, Prompt Engineering, Feature Engineering, Data Mining, Pattern Recognition, Web Development, Information Retrieval and Web Search.

Bachelor of Technology in Electronics and Communication Engineering   **May 2024**

Jawaharlal Nehru Technological University, India

Technical Skills

Languages: Python, SQL, PostgreSQL, R, MATLAB, C++, Java, HTML
Cloud Technologies: GCP, Microsoft Azure, Kafka, Databricks, AWS, Docker, Kubernetes
AI/ML Frameworks and Libraries: TensorFlow, PyTorch, Scikit-learn, LangChain, OpenAI API, Hugging Face
Deployment and Monitoring: APIs, MLflow, SageMaker, Kubeflow, Streamlit, Bazel, ONNX, TorchScript, Quantization
Data Engineering and Management Tools: Hadoop, Apache Spark
Data Visualization and BI Tools: Tableau, Power BI, Microsoft Excel, Seaborn, Matplotlib, Qlik
Microsoft Office: PowerPoint, Excel, Word, Outlook, Project, Access

Experience

Graduate Teaching Assistant | University of North Texas, USA   **August 2025 - Present**

- Created teaching materials on GenAI techniques such as diffusion models and NLP and their applications in various fields.
- Conducted evaluations of GenAI tools focusing on model usability, performance, and educational impact.
- Integrated AI frameworks with applied case study knowledge, demonstrating skills in model evaluation and responsible AI.

Artificial Intelligence Intern | Verzeo— Microsoft India, Hyderabad, IN   **September 2020 – December 2020**

- Developed a Face Mask Detection system with 95% accuracy, enhancing real-time compliance monitoring during COVID-19.
- Built a Traffic Signal Classification model, achieving 98% accuracy, optimizing automated traffic management.
- Successfully completed three AI-driven projects independently, reducing mentor dependency by 100%.
- Recognized as an Outstanding Performer of 2020, top 1% of interns for delivering high-impact AI solutions.

Projects

Prompt Recovery using FLAN-T5 — Hugging Face, PyTorch, Transformers

- Fine-tuned Google's FLAN-T5 model on a custom dataset of 250+ prompt–response pairs, reducing validation loss by 39% over 3 epochs for prompt inference tasks.
- Programmatically generated a synthetic instruction dataset with 5 diverse prompt types, enabling zero-shot prompt reconstruction from rewritten text.
- Achieved over 85% semantic accuracy in predicting original prompts using beam search, temperature tuning, and top-p sampling during evaluation.
- Utilized PyTorch and Hugging Face Trainer API on CUDA to accelerate training by 40%, and deployed the final model for real-time reverse-instruction generation.

Cloud-Based Hawaiian Bird Species Classification and Conservation System — Pandas, NumPy, Flask, AWS

- Achieved 65% Macro F1-Score using XGBoost, boosted Precision by 10% and Recall by 15% by integrating geographical metadata with Pandas and NumPy.
- Built and deployed a Flask-based API with an HTML/CSS frontend, containerized using Docker and served via Gunicorn, delivering sub-2-second inference for 95% of requests.
- Implemented a CI/CD pipeline using AWS CodePipeline and CodeBuild, automating Docker image updates and reducing deployment time by 30%.

Passenger Survival Prediction System — NumPy, CatBoost, Streamlit

- Trained a Logistic Regression model using Scikit-learn, achieving 62.22% accuracy, 0.6156 F1-Score, and 0.6748 AUC-ROC through feature selection using Pandas and NumPy.
- Improved model performance with a CatBoost classifier, leveraging advanced hyperparameter tuning and cross-validation, reaching 78.70% accuracy, 0.7984 F1-Score, and 0.8751 AUC-ROC.
- Deployed both models using Streamlit for web development, creating an interactive real-time inference web page that maintained 80% accuracy in a local deployment environment.