ADITYA RATAN JANNALI

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EDUCATION

MS in Artificial Intelligence, September 2023 – May 2025
Northeastern University (GPA: 4.00), Boston, MA
Courses: Machine Learning, Foundations of Artificial Intelligence, Programming Design Paradigms, Algorithms.

Bachelor of Technology in Electronics and Communications Engineering July 2017 – June 2021
Vellore Institute of Technology (GPA: 9.11) Chennai, India
Courses: Statistics, Calculus, Linear Algebra, Probability Theory, Data Structures, Machine Learning, Digital Image Processing.

EXPERIENCE

Amazon August 2021 – August 2023
Application Engineer III Chennai, India

- Provided front line support to the AEE product and MENA Data Engineering and Science team, owning up automation projects to reduce incoming tickets by 35%, saving 20hrs/month of engineering time. Designed and built a common analysis dashboard featuring easy onboarding, customizable filters, and insights, enabling interactive views for engineers and leadership.
- Took full ownership of designing and building end-to-end plugins and ETLM pipelines utilizing Python, PostgreSQL, and AWS to generate insightful reports of pipeline health metrics, usage patterns, and cost utilization of Redshift clusters.
- Setup interactive dashboards for these plugins, providing leadership with real-time access to actionable insights during weekly and monthly business reviews, enabling data-driven decisions on load assessment and resource optimization.

Amazon January 2021 – July 2021
Software Support Engineer II Intern Chennai, India

- Designed, developed, and deployed a utility that collects service level raw data and distributes aggregated metrics to relevant service owners and stakeholders. This utility streamlines data management, enhances information accessibility, and facilitates decision making for key personnel.
- Assumed the role of release engineer, taking ownership of production deployment for multiple pipelines while ensuring their smooth operation.

Antpod April 2020 – December 2020
System Development Engineer Intern Chennai, India

- Involved in Research and Development of a proof of concept for an unmanned vehicle in ‘Land Stress Identification and Remote Sensing’.
- Prototyped an algorithm using Deep Fully Connected Convolution Network using Keras and TensorFlow to segment images from the dataset and perform classification to identify plant disease.

SKILLS

Languages:	Python, Java, C++, SQL, HTML, CSS, JS, shell.
Libraries:	OpenCV, sklearn, pytorch, Keras, TensorFlow, gym, transformers, pandas, NumPy, matplotlib,seaborn.
Frameworks:	git, huggingface, AWS – Redshift, IAM, S3, Secret Manager, IAM, EC2, ECS, VPC, KMS Sagemaker, Secret Manager, QuickSight, Athena, DynamoDB.

CERTIFICATIONS

- Machine Learning,
- Deep learning using TF – CNN and NLP,
- Digital Image Processing,
- Natural Language Processing – Classification And Vector Spaces, Probabilistic Models, Sequential Models, Attention Models (in progress).

PROJECTS

1. **Multiagent Tic-tac-toe** [GitHub] May 2024 – June 2024
   Implemented Q-Learning to train two agents with different reward schemes to play against each other. Each valid board configuration is a state in this environment which is modelled as a 9-digit ternary sequence eliminating the need to precompute the observation space.
2. **LLM generated vs Human text classification** [GitHub] April 2024 – April 2024
   Finetuned and evaluated two transformer models, ALBERT and DeBERTa-XS on DAIGT Proper Train dataset to detect LLM generated essays. Achieved an accuracy of 96.57% for ALBERT, and 99.43% for DeBERTa.
3. **Image Processor** [GitHub] November 2023 – December 2023
   Designed and MVC, developed and wrote unit and integration tests for an image processing application that performs various image manipulations on custom images. The controller uses command design pattern to listen and process user interaction, and JSwing for the view.
4. **S.H.A.P.E.R** [GitHub] November 2023 – December 2024
   Collaborated in developing the collision handler and environment setup of an AI controlled hand that deflects incoming object from hitting the target. This project makes use of genetic algorithm to train a neural network that generates the movement of the arm at each time step.