

ADITYA RATAN JANNALI

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OBJECTIVE

Seeking a challenging position in a dynamic organization that values creativity, collaboration, and a strong desire to build products that benefit our society.

EXPERIENCE

Amazon

Application Engineer III

Aug 2021 - Aug 2023

Chennai, India

- Front line support to AEE, and MENA Data Engineering Team. Brought 35% decrease in incoming tickets from FY 2022-23, saving 20hrs/month of engineers' time.
- Lead the OE Ticket Reduction Campaign of the Support Engineering Team by working with Support Engineers to find permanent root causes and chart OE roadmap.
- Built a QuickSight dashboard equipped with integrated analysis and forecasting capabilities for tickets. This data pipeline was created to assist leadership in reviewing the team's goals and prioritization efforts.
- Designed, and developed a plugin that projects pipeline health and usage statistics for 20+ teams across the organization. This solution, with AWS IAM, Athena, and Redshift, and Python as the backend.
- Built an ETLM (Extract Transform Load Management) pipeline capable of aggregating costs per user across various data querying modes (SQL client/spectrum/redshift/AWS Quicksight, etc.).

Amazon

Software Support Engineer Intern II

Jan 2021 - July 2021

Chennai, India

- Designed, developed and rigorously tested an automated tool utilizing internal APIs, AWS S3, IAM, Redshift, and Python as the backend. This tool efficiently collects service metrics and their statistics, then disseminates aggregated performance metrics to the respective teams responsible for those services.
- Significantly improved a monthly Operational data report generator by rectifying bugs and introducing additional metrics essential for over 20 teams across the organization.
- Assumed the role of a release engineer, taking ownership of the production deployment for multiple pipelines while ensuring their smooth operation.

Antpod

System Development Intern

April 2020 - Dec 2020

Chennai, India

- Involved in research and the development of a proof of concept for an unmanned vehicle in the 'Land Stress Identification and Remote Sensing' field.
- Created a CNN model using Keras and TensorFlow to effectively function as a multilabel image classifier.
- Fostered collaboration with various clients to gain insights into the role of their product within the company's overarching roadmap.

EDUCATION

Masters in Artificial Intelligence,
Northeastern University (GPA: 4)

Sept 2023 - May 2025

Boston, MA

Bachelor of Technology in Electronics and Communication Engineering,
Vellore Institute of Technology (GPA: 9.11)

July 2017 - June 2021

Chennai, India

SKILLS

Languages	Python, Java, C++, SQL (MySQL, and PostgreSQL), HTML, shell, CSS, JS
Libraries	transformers, numpy, gym, pytorch, pygame, pymunk, Keras, TensorFlow, sklearn, pandas, OpenCV, matplotlib, seaborn
Frameworks	git, AWS - Redshift, Quicksight, S3, Secret Manager, IAM, EC2, ECS, VPC, Sagemaker, Athena, DynamoDB, Amazon MWAA, Cloudformation, KMS
Softwares	Tableau, Anaconda, Ultimaker cura
Certifications	Coursera - Machine Learning, Deep Learning, CNN, NLP, Digital Image Processing
Softskills	Team management, Ownership, Deliver results, Bias for action

PROJECTS

LLM vs Human Text classification - [[github](#)] A project to fine-tune two BERT-based models over a corpus of 45000 essays written by high school students and 16 LLMs to classify if a given essay is written by a human or generated using LLM. For the scope of this project, we chose ALBERT and DeBERTa from huggingface to train the models and their respective tokenizers.

Image Processor - [[github](#)] Designed, implemented, and thoroughly tested an MVC for an image processing application that performs image manipulative operations. The controller implements a command design pattern to process user activity.

S.H.A.P.E.R. - [[github](#)] Collaborated in developing the collision handler and environment setup of an AI simulated hand that deflects an incoming object from hitting its target to a different goal post. The uniqueness of the project is the use of genetic algorithms to train a neural network that predicts the position of the arm.

Linked Sparse Matrix Structure - [[github](#)] Represented a square matrix as a linked structure and row heads so that the new data structure stores only non-zero elements. This reduced the compute time taken to perform multiplication and other arithmetic operations to $O(k \log n)$ compared to the conventional $O(n^2)$ method.

STUDENT ROLES

- Co-founder and Vice President of Robotics Club, Northeastern University (March 2024)
- Graduate Teaching Assistant - CS5100, Foundations of AI (Jan 2024 - Apr 2024)
- Chairperson for IEEE Student Branch, VIT Chennai (Jan 2020 - Jan 2021)
- Program Representative, Electronics and Communication Engineering, VIT Chennai (Aug 2019 - Apr 2020)

CONTESTS

- Third place, Optical Networks Make-A-Thon, VIT Chennai (Feb 2019)