ADITYA RATAN JANNALI

9167767065 ◇ Boston, MA

jadityaratan@gmail.com ◇ https://linkedin.com/in/aditya-ratan-j ◇ https://github.com/rjaditya-2702 ◇

EDUCATION

Masters in Artificial Intelligence,   Expected Dec, 2025
Northeastern University, (GPA: 4)   *Boston, MA*
Coursework in fall 2023: Program Design Paradigm, Foundations of AI.
Coursework in Spring 2024: Algorithms, Machine Learning.

Bachelor of Technology in Electronics and Communication Engineering,   2017 - 2021
Vellore Institute of Technology, (GPA: 9.11)   *Chennai, India*
Relevant Coursework: Calculus for Engineers, Difference and Differential Equations, Statistics for Engineers, Probability Theory and Random Process, Linear Algebra, Object Oriented Programming, Machine Learning

SKILLS

Languages	Python, Java, C++, SQL (MySQL, and PostgreSQL), HTML, shell, Verilog, R
Libraries	numpy, pytorch, pygame, pymunk, matplotlib, Keras, Tensor Flow, sklearn, pandas, OpenCV
Frameworks	git, AWS - Redshift, Quicksight, S3, Secret Manager, IAM, EC2, ECS, VPC, Sagemaker, Athena, DynamoDB, Amazon MWAA, Cloudformation, KMS
Softwares	IntelliJ, VSCode, Tableau, MATLAB, Anaconda, R Studio
Certifications	Coursera - Machine Learning, Deep Learning, CNN, NLP.

EXPERIENCE

Amazon   Aug 2021 - Aug 2023
Application Engineer III   *Chennai, India*

- Improved operational efficiency within the Data Engineering team by addressing issues and vulnerabilities by bringing 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.
- Developed a plugin that enabled the projection of data on pipeline health and usage statistics for 20+ teams across the organization. This solution, with AWS IAM, Athena, and Redshift, and Python as the backend, was meticulously designed, developed, and rigorously tested.
- Constructed 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   Jan 2021 - July 2023
Software Support Engineer Intern II   *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   April 2020 - Dec 2020
System Development Intern   *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.

PROJECTS

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 accept input.

SHAPER - [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 project is built using Genetic Algorithms and Neural Network to train the arm over generations.

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(klog n) compared to the conventional $O(n^2)$ method.