

ADITYA S GOURISHETTY

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Education

Texas A&M University, College Station, TX

August 2024 – May 2026

Master of Science in Computer Science

GPA: 4.0

National Institute of Technology Karnataka, Surathkal

July 2017 – May 2021

Bachelor of Technology, Electrical and Electronics Engineering

Skills

Languages: Python, Java, C/C++, Ruby, Bash, SQL, HTML, CSS

Frameworks and Libraries: Pyspark, PyTorch, FastAPI, SQLAlchemy, NumPy, Scikit-learn, PostgreSQL, Terraform

Platforms and Tools: Amazon Web Services(AWS), Databricks, Apache Airflow, GoCD(CI/CD), Docker, ELK

Certifications: AWS Certified - Developer Associate

Experience

Software Engineer

August 2021 - July 2024

Epsilon (Publicis Groupe)

- Implemented REST APIs to retrieve Airflow Machine Learning(ML) model pipelines status, model instance user edit trail information, and model outcome insights for Epsilon's CDP(Customer Data Platform) UI.
- Built an automated testing framework for ML workflows and data/model pipelines in Databricks, Postgres, and Airflow, reducing manual testing by 20 hours per sprint in collaboration with data scientists, architects, and developers.
- Created parameterized Terraform modules and pipeline templates on GoCD using bash scripts to automate creation of various cloud resources on AWS and Databricks related to access management, compute configuration, and storage.
- Developed a Java library to expose ML model scores with A/B testing to different products integrating AWS resources and APIs, and including error handling, logging, continuous deployment, code coverage, and vulnerability monitoring.
- Implemented a multi-purpose data-mapping transformer leveraging Spark for data pipelines to transform data from several sources in different formats into standard data objects consumable by various ML model pipelines.

Intern

May 2020 - July 2020

MakeMyTrip

- Collaborated with data scientists and engineers to create Redash dashboards using AWS Sagemaker for flight booking data; analyzed clickstream data to improve feature selection for dynamic discounting models.

Achievements

- Achieved a Top 6 finish in Epsilon's global AI Hackathon (85+ teams) by building an email creative generator using Azure OpenAI LLM services.
- Top 10 finalist in Continental's Fiction2Science national Hackathon for the Driver in-cabin behavior sensing project.
- Secured 2nd place at Texas A&M's Tidal Hackathon (300+ participants) by developing a contextual E-Reader applying SentenceTransformer (paraphrase-MiniLM) and AWS Bedrock with LLaMA for entity context.

Projects

Malware Generation

In-Progress

- Researching methods to generate malware, specifically adversarial malware samples employing Generative Adversarial Networks(GAN) and Reinforcement Learning to improve robustness of malware detection systems via dynamic analysis.

United States Space Force - GRC Controls

- Developed and deployed a Ruby on Rails web app for Docker image vulnerability scanning using Trivy, implemented RBAC with fine-grained permissions, performed threat modeling, and delivered a SaaS solution to the United States Space Force.

Audio Data Augmentation using GANs

- Constructed Deep Convolutional GANs with PyTorch to generate logarithmic audio spectrograms, enhancing VGG16 and ResNet50 performance in speech-emotion recognition by addressing data inadequacy through augmented training data.

Driver in-cabin behaviour sensing for Crash Prevention

- Engineered a system for sensing driver distraction via vehicle's dashboard camera in realtime utilizing a facial landmark detector. Incorporating CLAHE for glare reduction and 2D to 3D image transformation for head tilt analysis.

Leadership Activities

- **Media Head - Hackverse NITK** - Led social media campaigns for NITK's first national-level Hackathon, achieving over 2,500 registrations. Coordinated technical, marketing, and legal aspects with team leads and sponsors.
- **Design and Creative Head - Institute Of Engineers, NITK Chapter** - Led the Media SIG, establishing club's brand identity and visual ideology. Redesigned the logo, curated aesthetics for website, t-shirts, and event posters.