Adithya Jayasundar TS

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EDUCATION

	Institution	Course/ Examination	Year	GPA/%
1	Digital University of Kerala	MSc Data Analytics with Computational Science	2024-2026	9.4 (1st sem)
2	Hindu College, University of Delhi	BSc(Hons) Statistics	2021-2024	6.9
3	Bharathamatha Higher Secondary School	Computer Science Class XII	2021	98.7%

INTERNSHIP EXPERIENCE

R&D Intern, Centre for Intelligent Government Project   (Ongoing)

• Fine-tuned a LayoutLM model on **400+ confidential legal documents** using an **NVIDIA A100 GPU (Linux)**, achieving **96% accuracy** in metadata extraction and document understanding.

• Built a semantic search engine ("GO Search") using Elasticsearch, enabling intelligent retrieval through natural language, **context-aware**, and **Malayalam keyword-based** queries.

• Integrated **LLM-based text cleaning to enhance OCR outputs** and document clarity; presented the working prototype to officials from the High Court of Kerala's IT Department.

ACADEMIC PROJECTS

Deep Learning-Based EEG Signal Analysis for Epileptic Seizure Detection   (paper in review stage)

• Built a **CNN–LSTM hybrid model** to classify epileptic seizures from raw EEG signals using time–frequency representations.

• Outperformed traditional ML benchmarks, improving classification accuracy by **0.83%** over models such as Random Forest and XGBoost.

• Ensured robustness with a **4-fold cross-validation** framework to validate generalizability.

CycleGAN for Unpaired Image Translation   (Apr'25)

• Implemented a **CycleGAN architecture** in PyTorch for unpaired image-to-image translation.

• Trained on benchmark datasets (**Horse ↔ Zebra, Apple ↔ Orange**) to generate high-fidelity visual style transfers.

• **Evaluated model performance using metrics from the original CycleGAN paper**, including qualitative visual comparison and quantitative measures of translation fidelity.

COURSES AND CERTIFICATIONS

Google Cloud Career Launchpad Data Analytics and Computing Foundation Track   (Jun'25)

• Completed a broad-based curriculum covering **Cloud Fundamentals**, **Big Data**, and **Media Analytics** — including **video ingestion, processing, and analytics** — along with core infrastructure concepts (**Compute**, **Storage**, **Networking**, **Security**).

• Designed and implemented **scalable data pipelines** and **ETL workflows** using **BigQuery**, **Dataproc**, **Cloud Storage**, and **streaming frameworks** to handle both **structured and unstructured (video) data**.

• Developed **end-to-end analytics solutions** — ingesting, transforming, visualizing, and interpreting data — using **Looker Studio**, **Python/SQL**, and **Machine Learning tools** to deliver **actionable business insights**.

Neural Networks and Deep Learning *(Deep Learning.AI)*   (Jan'25)

• Completed an intensive course covering **deep neural network architectures, optimization algorithms, and regularization techniques**.

• Built a strong foundation in both **theory and practical implementation** of deep learning models.

ACHIEVEMENTS & AWARDS

Innovatex AI Hackathon – Centre for Digital Intelligent Government (1st Place Winner)   (Mar'25)

• Developed a **full-stack document analysis solution** using **Tesseract OCR** for text extraction and **RegEx** for accurate metadata capture.

• Engineered a **semantic fuzzy search repository** to enable efficient information retrieval.

• Integrated the data processing pipeline with a **Flask backend** and built a seamless user interface for end-to-end usability.

Responsible AI & Inclusivity Ideathon – Mozilla Responsible Computing Community (1st Place Winner)   (Sep'24)

• Proposed a **responsible AI framework** addressing ethical challenges in modern AI systems.

• Tackled **LLM hallucinations** by formulating concrete fine-tuning guidelines to ensure content authenticity.

• Designed strategies to **mitigate algorithmic bias**, promoting fairness and inclusivity in AI-driven outcomes.