Sainath Varma Nandimandalam

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EDUCATION

Bachelor of Technology, CSE – Data Science — Aug 2021 – May 2025
Jain (Deemed-to-be-University), Bengaluru — *GPA – 8.05*
Graduation: May 2025

12th Grade, MPC (Math, Physics, Chemistry) — June 2019 - May 2021
Board of Intermediate Education, Andhra Pradesh — *Percentage – 81.4*

10th, Secondary School Certification (SSC) — May 2019
Edify International School, Andhra Pradesh — *Percentage – 76.6*

SKILLS

- Programming: Python (Pandas, Scikit-learn), Structured Query Language (SQL) - Advanced, Java
- Machine Learning: Predictive Modelling, Decision Trees, Neural Networks, Matplotlib, Scikit-learn
- Relevant Coursework: Data Structures & Algorithms, Computer Networks, Power BI, Tableau, Deep Learning

EXPERIENCE

AI/ML Intern | On Device Solutions Ltd. | Hyderabad, Telangana. — Aug 2025 – Nov 2025

- Applied ML/DL techniques on **SAP APM** for predictive maintenance, anomaly detection, and Remaining Useful Life (RUL) estimation of machines.
- Performed **EDA and feature selection** on hydraulic system sensor data (pressure, temperature, flow, vibration, etc.) to identify useful signals.
- Implemented **Isolation Forest** for unsupervised anomaly detection and developed **LSTM-based time series models** for sequential anomaly analysis.
- Collaborated on integrating **sensor data analytics** into predictive maintenance workflows, gaining exposure to industrial IoT applications

PROJECTS

Brain Tumour Detection, Segmentation and Classification — Aug 2024 – Jan 2025

- Designed and implemented a custom ***CNN using TensorFlow*** to accurately detect the presence of brain tumours from 2,000 MRI with 86.6% accuracy.
- Utilized ***ResNet50*** for precise tumour segmentation from a 512 x 512 size images, creating bounding boxes around affected areas for visual clarity in diagnostic imaging.
- Utilized the segmented images to classify the tumour types (Meningioma, Pituitary, Glioma) using ***VGG-15 CNN*** model achieving a substantial accuracy of 83.4%.
- Optimized workflow to trigger segmentation and classification only when a tumour is detected, minimizing computational overhead.

Bank Loan Analysis Dashboard — May 2023 – June 2023

- Developed an interactive and exploratory dashboard in ***Power BI*** for bank loan analysis project using 40k records, providing insights into loan statistics, payment trends, and customer demographics.
- Designed dynamic reports including state-wise and month-wise loan status, with slicers, card visuals, and a page navigator for easy drilldowns and in-depth analysis of customer loan behaviour based on verified status and loan grades.
- Tracked and visualized ***Key performance indicators (KPIs)*** such as year-wise loan amounts, grade/sub-grade-wise loan balances, verified vs. non-verified payment comparisons, and state/month-wise loan statuses, providing actionable insights for financial decision-making through dynamic Power BI dashboards.

PDF-Chatbot using Gemini 1.5 pro — May 2023 – June 2023

- Developed a PDF chatbot leveraging ***Google Generative AI*** (Gemini 1.5 Pro) via ***Google API*** to provide intelligent responses to queries based on uploaded PDF documents.
- Designed the workflow with agents and deployed to ***Streamlit cloud***, the chatbot extracts and processes text from PDFs, enabling accurate and context-aware answers

CERTIFICATIONS & REWARDS

- Coursera – 2023 Data Analysis and Visualization with Power BI
- Coursera – 2023 SQL for Data Science
- Udemy - 2023 Complete Python Bootcamp from Zero to Hero in Python.