Sainath Varma Nandimandalam

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SUMMARY

Data Science graduate with hands-on experience in **machine learning, deep learning, and predictive analytics**. Strong in **Python, SQL, computer vision, time-series modeling, and data visualization**, with industry exposure to **predictive maintenance and anomaly detection**. Experienced in building **end-to-end ML pipelines** and deploying models using **Streamlit and cloud platforms**.

EDUCATION

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

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, NumPy), SQL (Advanced), Java
- Data Visualization & BI: Power BI, Tableau, KPI Reporting, Interactive Dashboards
- Relevant Coursework: Data Structures & Algorithms, Machine Learning, Deep Learning, Statistics, Data Visualization, Big Data Analytics

EXPERIENCE

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

- Orchestrated **machine learning and deep learning models** on **SAP APM** for **predictive maintenance and RUL estimation**, analyzing **120k+ time-series sensor records** from industrial equipment.
- Executed **EDA and feature engineering** on **8+ sensor parameters** (pressure, temperature, flow, vibration), improving data quality and model readiness by approximately **20%**. Deployed **Isolation Forest** for **unsupervised anomaly detection**, reducing **false-positive alerts by ~25%** and improving anomaly detection reliability.
- Engineered **LSTM-based time-series models** to capture sequential failure patterns, enabling **15–18% earlier anomaly identification** in machine operation cycles.

PROJECTS

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

- Developed a **custom CNN using TensorFlow** to detect brain tumors from **2,000 MRI images**, achieving **86.6% accuracy**.
- Applied **ResNet50 (transfer learning)** for **tumor segmentation** on **512×512 MRI images**, generating bounding boxes for localization.
- Classified tumor types (**Meningioma, Glioma, Pituitary**) using a **VGG-based CNN**, achieving **83.4% accuracy**.
- Optimized the **end-to-end computer vision pipeline** to perform segmentation and classification **only after tumour detection**, reducing computational cost.

Bank Loan Analysis Dashboard — May 2023 – June 2023

- Built an **interactive Power BI dashboard** for **bank loan analytics** using **40k+ records**, analyzing loan performance, payment trends, and customer demographics.
- Designed **dynamic reports** with **state-wise and month-wise analysis**, utilizing **slicers, KPIs, card visuals, and drill-through** for detailed insights by loan grade and verification status.
- Visualized key **financial KPIs** including **year-wise loan amounts, grade-wise balances, and verified vs non-verified payments**, enabling **data-driven financial decision-making**.

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