Nandakishore Ellendula

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SUMMARY

Data & AI Professional with 2+ years of experience developing machine learning solutions and analyzing complex datasets. Proven success in building high-accuracy AI systems (90%+ in video analytics) and deploying scalable models. Continuously expanding expertise in emerging technologies like LLMs, generative AI, and cloud-based MLOps.

SKILLS

Machine Learning & AI: Deep learning (Neural Networks), Transformers, TensorFlow, LLMs, PyTorch, NLP
A/B Testing & Statistical Analysis: Hypothesis testing, confidence intervals, experimental design
Programming, Web Development & Databases: Python, C++, SQL, HTML, CSS, ReactJS, Flask, MongoDB
Cloud & MLOps: AWS SageMaker, Snowflake, Databricks, Docker, Kubernetes
Data Analytics, Visualization & Tools: Pandas, NumPy, Scikit-Learn, Power BI, Matplotlib, Git, VS Code, Excel, PowerPoint, Linux, JIRA

EXPERIENCE

Systems Engineer, Tata Consultancy Services, Hyderabad, India — **May 2022 – Nov 2023**

- **Anomaly Detection System:** Developed a video analytics ML system using image processing and machine learning, achieving **90%+ accuracy** in detecting anomalies (e.g., no-signal/blue-screen frames) via template matching.
- **Feature Engineering:** Designed and implemented a feature engineering pipeline using Random Forest (RF) and clustering algorithms, improving model performance by **30%**.
- **API Integration & Automation:** Formatted JSON outputs containing frame details (ID, size, RGB percentages) and delivered them to the CI/CD production team, enabling seamless integration.
- **Performance Optimization:** Conducted experimentation and validation using descriptive statistics and statistical analysis to refine model accuracy and efficiency.
- **Agile Collaboration:** Worked in an Agile team to meet strict deployment deadlines and address production issues efficiently.

Intern, Tata Consultancy Services, Hyderabad, India — **Mar 2022 - Jun 2022**

- **Containerization & Orchestration:** Reduced deployment failures by containerizing services using Docker and orchestrating them with Kubernetes, enhancing scalability and fault tolerance.
- **Monitoring & Observability**: Integrated Prometheus and Grafana for real-time monitoring of container health and application performance metrics, improving system observability and reducing manual monitoring overhead by **30%**.

Data Science Intern, Dhyanahitha, Hyderabad, India — **Aug 2021 - Dec 2021**

- **Risk Prediction Model:** Developed a credit risk prediction model using Logistic Regression, CatBoost and Decision Trees, improving loan default detection accuracy by **15%**.
- **Data Analysis & Visualization:** Performed SQL-based data extraction and exploratory data analysis (EDA) to identify key risk indicators, with insights visualized in interactive dashboards, reducing manual review time by **20%**.
- **Version Control**: Leveraged git for source code management, ensuring traceability and minimizing merge conflicts during collaborative development and innovation processes.

PROJECTS

Advanced NLP Research with LLaMA2
- Implemented novel RAG architecture using LangChain and Pinecone, achieving 25% improvement in response accuracy.
- Conducted extensive experimentation with different embeddings models and retrieval strategies.

HR Analytics Dashboard with Power BI
- Designed an HR analytics dashboard that visualized employee leave trends, improving workforce management insights.

COVID-19 Case Prediction (Time Series Forecasting)
- Trained time series ML models (XGBoost, Random Forest, SVM) to forecast COVID-19 cases, achieving **92%** accuracy.

Data Pipeline & Analytics Infrastructure
- Built scalable ETL pipelines using AWS services (Glue, Redshift, S3) and implemented data quality monitoring and alerting system.

EDUCATION

University of Central Missouri, MO, United States - *Master of Science, Computer Science - GPA: 3.7* — **Jan 2024 - May 2025**
Relevant Coursework: Advanced Algorithms, Data Science, Machine Learning, Operating Systems, Advanced Database Systems

Gitam University, Hyderabad, India - *Bachelors of Technology, Computer Science - GPA: 4* — **Jun 2018 - Apr 2022**
Relevant Coursework: Data Structures & Algorithms, Statistics & Probability, Object-Oriented Design, Data Science

CERTIFICATIONS

AWS Certified Cloud Practitioner