SANTOSH ORUGANTY

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SUMMARY: Data Science graduate from WPI with 2+ years of hands-on experience in data engineering, machine learning and AI research across industry and academia with proven ability to deliver scalable solutions and actionable insights.

SKILLS

- **Programming & Query Languages**: Python (NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn), R, SQL, PL/SQL
- **Analytics, Visualization & Development Tools :** Statistical Analysis (Regression, Hypothesis Testing, Classification, Resampling), Tableau, Streamlit, Git/GitHub, Jupyter, Postman, Docker, MS Excel
- **Data Infrastructure & Cloud Platforms:** AWS (EC2, RDS), Azure, GCP, PostgreSQL, Oracle
- **Machine Learning & Deep Learning:** Supervised/Unsupervised Models, CNNs, GANs, Recommendation Systems.
- **Natural Language & Vector Search:** FAISS, LangChain, Llama Parser, NLTK, OpenAI, Llama, Qdrant, RAG.

EXPERIENCE

ML & Data Engineering Intern, TrueLight Energy LLC - Boston, MA **September 2024 – Present**

- Automated end-to-end data workflows across five major ISOs and seven data types, achieving a **50% reduction in data processing time and a 2× increase in operational efficiency** through scalable ETL pipeline design.
- **Engineered and deployed AWS-based infrastructure** (EC2, RDS) to support real-time energy data ingestion and analysis, **reducing operational costs by 40%** and enabling seamless processing of high-volume datasets across teams.
- **Developed and documented the TRUEPrice product suite,** including an interactive query builder, API user guide, and decision workflow diagrams; boosted product adoption and usability while **advancing R&D efforts on a RAG-based energy forecasting system delivering actionable market insights.**

Research Analyst, Worcester Polytechnic Institute - Worcester, MA **May 2024 – July 2025**

- **Developed an AI Agent in Dermatology** under Professor Chun-Kit Ngan, integrating image and label classification with a RAG pipeline powered by Qdrant, Re-ranker, and LLM Blender for interactive diagnosis.
- **Designed and evaluated the prototype** through extensive experimentation, building a robust tool for dermatological assessments.

Jr. Data Scientist - GQP, XtraSensing Ltd. Worcester, MA **August 2024 – December 2024**

- Developed and fine-tuned Machine and Deep Learning models for real-time anomaly detection in multivariate time-series data, improving predictive maintenance for a Hong Kong hospital and earning Most Valuable Player (MVP) recognition.
- Optimized model thresholds and applied feature selection techniques to ensure zero false negatives and a perfect precision-recall tradeoff, enhancing reliability of fault detection systems.

Artificial Intelligence Intern , Tecra Systems - Worcester, MA **June 2024 – September 2024**

- Developed an automated OCR solution by utilizing custom processors in Azure Document AI studio, enhancing the accuracy and speed of data extraction from documents.
- Collaborated with AI team to integrate the solutions into existing workflows, significantly reducing costs and processing time.

Application Development Associate, Accenture - Chennai, India **December 2021–August 2023**

- **Executed ETL workflows using Oracle Data Integrator and optimized PL/SQL processes**, reducing processing time by 15% and ensuring 100% data integrity across Oracle EBS systems.
- **Developed and maintained Oracle EBS modules**, including Forms, BI Publisher reports, and concurrent programs; translated business requirements into functional prototypes, contributing to the success of a large-scale project.
- **Automated web application testing using Selenium WebDriver and API testing with Postman**, improving test coverage and reliability across releases.

EDUCATION

WORCESTER POLYTECHNIC INSTITUTE (WPI) Worcester, MA
Master of Science - Data Science *(GPA:4.0/4.0)* **August 2023 – May 2025**

- **Coursework:** Statistics, Big Data Management & Analytics, Machine Learning, NLP, Directed Research.
- **Teaching Assistant : CS 534 - Artificial Intelligence, CS 542 – Database Management Systems**
- **MVP** Award for Graduate Qualifying Project : Anomaly Prediction for Predictive Maintenance with XtraSensing Ltd.

S.A. ENGINEERING COLLEGE (Anna University) Chennai, India
Bachelor of Engineering - Mechanical Engineering (GPA: 3.6/4.0) **August 2017 – June 2021**

- **Secretary, The Institution of Engineers (IEI)** & Member, The National Service Scheme (NSS)

PROJECTS & AWARDS- GitHub

- **Data Science & Analytics:** Reddit Analytics(PRAW)**,** Classification Models - Structured & Unstructured data**,** Anomaly Detection in MTS Data, and Phishing URL Detection using the PhiUSIIL Dataset**.**
- **Natural Language Processing:** Sentiment Analysis, Question Answering, RAG Chatbots, and Yelp Data Challenge.
- **Big Data Applications:** Image Generation (GAN), Trajectory Data Classification, and GitHub Statistics Estimation.