

VIVEK SAI POTU

Birmingham, AL

PROFESSIONAL SUMMARY

Results-oriented Electrical Engineer with a strong background in **power systems**, **data analytics**, and real-time simulation. Experienced in grid operations, transmission and distribution technologies, and **data-driven decision-making**. Adept at applying **machine learning algorithms** for predictive analytics and operational improvements. Strong problem-solving and analytical skills, with a passion for **innovation** and sustainable energy solutions.

EDUCATION

University of North Texas, Denton, Texas

Master of Science in Electrical Engineering, GPA: 3.89/4.0

- Relevant Courses: Power Systems, Control Systems, Machine Learning, Digital Communications, Computer Networks, Computer Vision

CMR College of Engineering and Technology, Hyderabad, India

Bachelor of Technology in Electrical and Electronics Engineering, GPA: 8.98/10.0 (Magna cum Laude)

EXPERTISE

➤ Power Generation	Computer Networking	Project Management
➤ Transmission Systems	Auto Cad & PLC	Problem Solving
➤ Distribution Control Systems	Python Programming	Multi-Tasking
➤ Networking	SQL Server	Teamwork
➤ Power Control System	Excel & word	Communication Skills
➤ MATLAB	CAN	SPI
➤ I2C		

ACADEMIC EXPLORATION & PROJECTS

Machine Learning for Parkinson's Disease Detection

- Implemented **K-Nearest Neighbors** (KNN), Support Vector Machine (**SVM**), Random Forest, and **XGBoost** to classify Parkinson's disease based on vocal frequency data.
- Preprocessed data using **MinMaxScaler** and performed Principal Component Analysis (PCA) to reduce dimensionality and improve model performance.
- Conducted hyperparameter tuning and evaluated models using accuracy score and confusion matrix, achieving the highest accuracy of **94.9%** using **XGBoost**.

- Compared multiple machine learning algorithms, identifying XGBoost as the most effective classifier for early detection of Parkinson's disease.

Smart Grid Management System:

- Design and develop a **smart grid system** that improves energy distribution and management systems using advanced technologies like **IoT, data analytics, and machine learning**.
- Used SQL-based systems like **MySQL** to manage structured data like load profiles and historical performance data.
- Collaborated with interdisciplinary teams to design and implement **smart grid solutions**, bridging IT and electrical engineering.

PROFESSIONAL EXPERIENCE

KNR Paradise Holdings

Electrical Engineer

Feb 2024-present

- Conducted regular **inspections** and **troubleshooting** of electrical circuits, motors, and control systems to prevent failures, ensuring uninterrupted operations.
- Performed detailed electrical **system analysis**, identifying issues and implementing enhancements that improved system efficiency and reliability.
- Utilized **MATLAB** and **AutoCAD** for designing, simulating, and optimizing electrical circuit performance, reducing design time and enhancing accuracy.
- Successfully **managed end-to-end electrical projects** from concept to completion, delivering on time and within budget while meeting quality standards.
- Collaborated cross-functionally to **troubleshoot** and **optimize** electrical systems, minimizing downtime and enhancing operational reliability.

CERTIFICATIONS

- Python for Data Science – Coursera
- Complete Course in AutoCAD Electrical 2022 – **Udemy**

LEADERSHIP EXPERIENCE

Student Supervisor, Fuzzy's Taco Shop, UNT

- Managed and trained a team of 7 employees, ensuring an efficient delivery service and **customer satisfaction**.
 - Implemented process improvements to enhance workflow and reduce operational bottlenecks.
-
- I will be relocated, and I am sure I can contribute to your organization's growth and profit. I appreciate the opportunity to show you how I can help your company meet its goals.