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DINAKAR S M

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Summary

Aspiring Data Analyst and Embedded Systems Engineer with strong skills in Python (Pandas, NumPy, Matplotlib), SQL, Power BI, Tableau, and Git/GitHub. Experienced in analyzing datasets, building interactive dashboards, and developing embedded hardware solutions using microcontrollers and sensors. Highly interested in renewable energy analytics, focusing on data-driven energy optimization, performance monitoring, and smart system design to improve efficiency and sustainability. Also have hands-on experience performing MATLAB-based simulations of power electronics circuits, including DC–DC converters and basic power conversion systems.

Education

Easwari Engineering College,Ramapuram,Chennai *2023-Present*
B.E., Electrical and Electronics Engineering Grade: 8.59 (Till Sem 4)

SRV Mat.Hr.Sec.School, Trichy *2019-2023*
Secondary and Higher Secondary Education(Bio-Maths) Grade: 89.88%(HSC)

Technical Skills

- **Programming Languages** : C, Python, SQL, Embedded C
- **Tools Softwares** : Power BI, Tableau, MS Excel, Microsoft Office Suite, MATLAB, Embedded Tools (Tinker CAD, Arduino IDE)
- **Version Control**: Git, GitHub
- **Database** : Mysql
- **Domains** : Data Analytics, Renewable Energy Analytics, Embedded Systems.

Soft Skills

- Communication
- Problem-Solving
- Analytical Thinking
- Logical Reasoning
- Attention to Detail
- Troubleshooting
- Teamwork
- Adaptability
- Time Management

Certifications

- **FreeCodeCamp** — Data Analysis with Python *Sep 2025*
- **HackerRank** — SQL (Basic) *Aug 2025*
- **Udemy** — C Programming Language *Feb 2025*
- **Cisco Networking Academy** — Python Essentials *Oct 2024*
- **Novitech R&D** — Data Analytics (Masterclass) *Sep 2024*

Experience

- **Embedded Systems Intern, Evolve Robot Lab** *May 2025 – June 2025*

  Gained hands-on experience with microcontrollers (Arduino, ESP), sensor interfacing, motor control, and IoT integration using Wi-Fi and Bluetooth through practical projects including a robotic arm and a mobile robot. Developed skills in real-time control systems, wireless communication, and high-level embedded processing.

Projects

- Flipmart Sales Data Analysis Using Power BI, Excel - Project Link

  Analyzed FlipMart retail sales data to identify trends in revenue, profit, customer segments, and shipping modes. Built an interactive Power BI dashboard with KPIs, slicers, and visual insights to track time-based performance, category-wise profitability, and regional sales distribution. Utilized Excel for data cleaning and preprocessing to support accurate business insights and decision-making.

- Designed a robotic arm and its control using Potentiometers - Project Link

  Designed and developed a robotic arm control system using Arduino, where potentiometers were used as analog input devices to precisely control multiple actuators. Mapped potentiometer values to actuator movements for smooth and real-time joint control, enabling accurate positioning of the robotic arm. This project strengthened hands-on skills in embedded systems, actuator control, sensor interfacing, and microcontroller-based automation.

- Wind Turbine Analysis Using Python - Project Link

  Analyzed wind turbine SCADA data to evaluate operational performance and condition monitoring using Python-based visualization techniques. Studied the wind speed–power relationship to identify operational anomalies and underperforming conditions. Examined temperature trends of critical components to detect early signs of degradation. Verified drivetrain consistency through rotor and generator speed analysis and assessed blade pitch control behavior to ensure stable and healthy turbine operation.

Languages

- English
- Tamil