Dawit Shimeles Tesfaye

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Professional Summary

Innovative Electrical Engineer specializing in IoT, smart farming systems, and marine electrical systems. Adept at troubleshooting complex electrical issues, implementing cutting-edge IoT solutions, and spearheading research in emerging technologies. Demonstrated success in optimizing system performance, significantly reducing operational costs, and enhancing overall efficiency in diverse engineering environments.

Professional Experience

Junior Electrical Engineer   **January 2023 - January 2024**

Mataf Supporter, Iran

- Engineered and maintained shipboard electrical systems, slashing system downtime by 20% and boosting operational efficiency

- Spearheaded fault diagnosis and resolution in power distribution systems, resulting in a 15% improvement in overall system efficiency

- Designed and implemented a comprehensive preventive maintenance schedule, reducing unexpected breakdowns by 30% and saving an estimated $50,000 in potential repair costs

- Pioneered power consumption optimization strategies, achieving a 10% reduction in fuel costs, equivalent to $100,000 annual savings

- Orchestrated regular safety inspections and audits, ensuring 100% compliance with international maritime safety and operational standards

- Mentored and trained a team of 5 junior technicians, improving team productivity by 25%

Internships

Industry 4.0 Intern   **January 2020**

Gustovalley Technovations, Hosur, Tamil Nadu, India

- Developed and implemented IoT-based solutions for real-time monitoring of manufacturing processes, increasing production efficiency by 12%

- Collaborated with a cross-functional team to integrate Industry 4.0 technologies, resulting in a 15% reduction in production downtime

Advanced Embedded System Design Intern   **June 2020**

EdGate, Bangalore, India

- Engineered embedded systems using Tiva C series Microcontroller, creating 3 functional IoT prototypes

- Optimized firmware for a smart home automation system, reducing power consumption by 20%

AI-based Power Electronics and Power Systems Intern   **August 2020**

KIIT Deemed University, Bhubaneswar, India

- Conducted research on AI algorithms for power systems optimization, presenting findings to a panel of experts

- Developed a machine learning model that predicted power consumption patterns with 92% accuracy, enabling more efficient resource allocation

Projects

Smart Agricultural Monitoring System

- Designed and implemented an IoT-based smart farming system, increasing crop yield by 25% and reducing water usage by 30%

- Integrated sensors and actuators to automate irrigation, pest control, and harvesting processes

- Presented the project at the International Conference on Computing and Applied Engineering 2021, Goa, India

Skills

Technical Skills: Advanced electrical system diagnostics and repair, Power distribution system design and optimization, IoT technology implementation and integration, Embedded systems programming (C, C++), AI and machine learning for power systems, Smart farming systems design and implementation, Energy auditing and efficiency optimization

Software Skills: MATLAB and Simulink, AutoCAD and SolidWorks, PLC Programming (Ladder Logic, Structured Text), Microsoft Office Suite (Advanced Excel, PowerPoint), Python for data analysis and machine learning

Soft Skills: Critical problem-solving and analytical thinking, Cross-functional team collaboration and leadership, In-depth research and data analysis, Technical writing and documentation, Project management and resource allocation, Effective communication and presentation

Education

B.Sc. Electrical Engineering   August 2021
Kalinga Institute of Industrial Technology, Bhubaneswar, India

Publications and Conferences

- "Smart Farming System Using IoT Technology." Turkish Online Journal of Qualitative Inquiry (TOJQI), Volume 12, Issue 6, June 2021: 1402-1410.

- "Smart Agricultural Monitoring using IoT." International Conference on Computing and Applied Engineering 2021, Goa, India.

Awards and Certifications

- Indian Science Congress Association - National Seminar on "Future India Science and Technology" (February 2019)

- KIT University - National Seminar on "AI in Energy and Healthcare" (March 2019)

- XXXIX World Congress of Poets - Recognition for Volunteer Mobilization (October 2019)

- Advanced Embedded System Design Certification - EdGate, India (June 2020)

- Industry 4.0 Internship Certification - Gustovalley Technovations, India (January 2020)

- AI-based Power Systems Certification - KIIT Deemed University, India (August 2020)

Languages

English (Fluent), Amharic (Native)