Subhrajyoti Nath

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EDUCATION

Bachelor in Technology
Electrical Engineering, NIT Rourkela
2015 – 2019 | Rourkela, Odisha

Higher Secondary: M.P.C
Excelsior +2 Science College
2013 – 2015 | Jajpur, Odisha

SKILLS

Python
Data wrangling, Data Analysis, ML Models, Web-development, Robotics (ROS)

SQL
Database Design, Query Optimization, Data Analysis, Stored Procedures & Triggers

AWS
Amazon S3, EC2, AWS Lambda,Amazon SageMaker

Power Bi
Data Modeling, Interactive Dashboards, Data Integration, Report Automation

PLC PROGRAMMING & SCADA
Ladder Logic Development, HMI Design, Process Control & Automation, Troubleshooting & Maintenance

PROFILE

Highly Motivated professional well-versed in process data mining, statistical modelling, and data visualization with strong analytical and problem-solving skills. Proactively seeking analyst roles to assume more challenging roles that would enhance exposure and learning.

PROFESSIONAL EXPERIENCE

Tata Motors
Data Analyst Engineer
12/2022 – present | Pune, India

- Development tool to analyse vehicle data from the field and generate automated reports emphasizing different KPIs and RCAs.
- Analysis of charging data to visualise trends and efficiency of chargers.
- Handling large vehicular CAN datasets and creating visualization for Digital Twin Teams to test and validate models with actual data.

Tata Motors
Electronics and IIOT Engineer
09/2020 – 12/2022 | Jamshedpur, India

- Enhancing safety, productivity and quality through the Introduction of Digital solutions.
- Responsible for Preventive Maintenance, Daily Maintenance and Breakdown management of Control Systems

PROJECTS

RCA and Automated report generation Portal

- Spearheaded the creation of a comprehensive web-based portal using the Django framework, enabling real-time analysis of vehicle CAN (Controller Area Network) data.
- Implemented a dynamic graphing feature that allows users to customize data visualizations, aiding in more effective and tailored analysis of vehicle performance metrics.
- Engineered an automated reporting system that generates weekly reports, providing insights into key performance indicators (KPIs) and identifying potential faults in vehicle systems.
- The portal serves as a critical tool for fleet managers and automotive engineers, facilitating data-driven decision-making and proactive maintenance strategies.

Autonomous Material Handling Robot using ROS:

- Implemented autonomous navigation using Python code in ROS, enabling the robot to move to the desired location without human intervention.

SOFT-SKILLS

Communication, Teamwork, Problem-Solving, Adaptability, Leadership, Resilience

COURSES

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING
IntelliPredikt Technologies Limited

Python for Data Science and Machine Learning Boot Camp
Udemy

The Complete SQL Boot Camp
Udemy

TIA Portal for PLC Programming
Udemy

Short term Course on for Robotic Applications in Manufacturing
IIT Kharagpur

Finance For Non-Finance Managers
Ernst & Young Associates LLP

AWARDS

- Winner of company-level eHackathon in June 2023
- Gold Team Award by Plant Head Jamshedpur for Driving Execution of Network Upgradation.
- Silver-Team Award by Head HR Jamshedpur for productivity improvement of security Division through Low-Cost Automation
- Secured 2nd Position in Embetronix(Robotics) event Organized by IIT Kharagpur

- Integrated safety features, including collision avoidance, to ensure the safety of the robot and the workers.
- Developed a monitoring and controlling system for the robot, enabling remote access and control of the robot's functions.
- Conducted extensive testing and validation to ensure the reliability and accuracy of the robot's operations.
- Documented the project, including hardware specifications, software code, and user manuals, ensuring easy access to information for future reference.

Industry 4.0 Online Process Control & Traceability
Cab & Cowl Tracking and Tracing in BIW Factory:

- Developed a unique barcode system that utilizes Visual Basic Scripting (VBS) and SQL to map various parts aggregated into the cab and cowl.
- Integrated process parameters with the generated barcodes using SQL stored procedures, enabling real-time tracking and traceability of the parts.
- Created a real-time Power BI dashboard that monitors the production process and alerts the team to any spot quality issues, ensuring prompt resolution of problems.

Developed a VFD network system for parameter monitoring and preventive maintenance:

- Utilized NODE-RED to acquire data through MOD-BUS protocol, enabling real-time data collection from the VFD network system.
- Stored data in Relational Databases (MS SQL), allowing for easy data management and access.
- Developed a real-time monitoring dashboard using the DASH framework for parameter monitoring and preventive maintenance, providing valuable insights into the VFD network system's performance and enabling prompt action to be taken when necessary.

Redesigned the Profibus network to eliminate bus-related communication faults:

- Conducted a comprehensive analysis of the entire Profibus system and signal strength using ProfiTrace software, identifying the root cause of communication faults.
- Led the team in developing and implementing a star-based topology to improve diagnostics and fault detection, effectively eliminating Profibus-related issues.
- Demonstrated exceptional leadership by upgrading the network during non-production hours while adhering to production schedules, resulting in uninterrupted production.
- Recognized with **Gold-Team award** by senior management for outstanding leadership and successful network upgrade.