SUBHAM PATTNAIK

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PROFESSIONAL EXPERIENCE

RESEARCH INTERN, *Science and Engineering Research Board (SERB)* Aug 2024 – Sep 2024 / Silchar, India
- Optimized digital twin simulations for industrial applications through advanced data analysis.
- Enhanced predictive accuracy of digital twins by integrating mathematical models and machine learning.

Satyendra Nath Bose Summer Intern, *National Institute of Technology Silchar* Jun 2024 – Jul 2024 / Silchar, India
- Developed machine learning algorithms for RUL prediction, analyzing large-scale datasets.
- Applied data-driven optimization and collaborated with a research team to improve accuracy and efficiency, achieving $0.9602R^2$ score.

Full Stack Developer, *National Aluminum Company Limited (NALCO)* Jan 2024 – Feb 2024 / Damanjodi, India
- Built C++ full-stack apps to streamline industrial processes with cross-functional teams.
- Integrated data analytics for production insights and predictive maintenance using new technologies.

Assistant Supervisor, *Forever Living Products* Jan 2022 – Sep 2023
- Generated a total revenue increase of ₹75,000 by efficiently managing customer orders and maintaining accurate records, contributing to improved operational performance.
- Increased product marketing effectiveness by 11% through in-depth knowledge of the natural Aloe Vera product line, providing exceptional customer service and supporting targeted marketing strategies.

EDUCATION

Bachelor of Technology, NIST *University* Dec 2021 – present / Berhampur, India
Specialization In Machine Learning and Data analytics.
CGPA: 8.01/10.0

PROJECTS

Precision Pathodiagnostics for Solanum Tuberosum Disease Detection
- Engineering a YOLOv8 model for early potato disease detection.
- Achieving 98.01% accuracy with CNN, in collaboration with agricultural experts.

AI-based Automated Alarm Generation and Payload Dropping for Drones
- Devised an AI system for autonomous drone operations with object detection for target identification.
- Designed algorithms for optimal flight paths and payload delivery, achieving 99% target accuracy and 72% success.

TECHNICAL SKILLS

Programming Skills — Python | C , **Machine Learning / AI** — Deep Learning | Neural Networks | Computer Vision, **Data Science & Analytics** — Data Analysis | Statistical Modeling Data Visualization | Big Data Analytics, **Database Technologies** — MySQL | SQL, **Tools & Frameworks** — PyTorch | Scikit-learn Pandas NumPy, **UI/UX** — XML | HTML | React

CERTIFICATES

Science and Engineering Research Board (SERB)
- Digital Twin Technology for Industrial Application

National Institute of Technology Silchar
- S N Nose Internship Program

National Skill Development Corporation (NSDC)
- SQL for Data Analytics
- Full Stack Web Development
- Android App Development

National Aluminum Company Limited
- Vocational Trainning on Web Development

National Program for Technology Enhanced Learning
- E-Waste Management System

National Children Science Congress
- Sustainable Water and Agriculture

INTERESTS

Travelling | Crafting | Cooking | Gardening