ARPITA POONIA

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Results-driven robotics enthusiast with a passion for innovation and problem-solving, eager to contribute to a team of talented professionals in the field.

EDUCATION

Technische Hochschule Deggendorf   2023-Present

M.Eng – Mechatronics and Cyber-physical System

APJ Abdul Kalam Technical University   2018-2022

Bachelor of Technology – Mechanical Engineering

PROFESSIONAL EXPERIENCE

OMNI Automation   SEPT, 2021 – JAN, 2022

Intern, Engineer Trainee

- Completed a 4-month engineering internship at a manufacturing firm, working on process optimization projects.
- Design and implementation of PLC- based control applications
- Applied machine learning models for predictive maintenance.
- Participated in code reviews, ensuring clean code practices and OOP principles.
- Supported the development of Proof of Concepts (POCs) for new AI technologies and applications.
- Provided customer support in diagnosing and resolving technical issues.

FESTO DIDACTIC   JUNE, 2021 – JULY, 2021

Trainee

- Conducted experiments to optimize inference processes and improve model accuracy and efficiency.
- Assisted in training AI models and analyzing their performance.
- PLC programming with CODESYS Software
- Proficient in utilizing CIROS, a 3D virtual training platform
- Contributed to benchmarking and performance verification of automation models.
- Provided customer support by diagnosing and resolving technical issues.

PROJECTS

Mathematical Modelling and Simulation of Quadruped Robot

- Developed 3D model of robot using SolidWorks.
- Utilized MATLAB-Simulink for design and simulate control theory-based robot movements.
- Enhanced stability and mobility using advanced machine learning techniques.
- Documented the simulation and modeling processes thoroughly.

Autonomous Navigation System for Robotics

- Utilized Designed and implemented a navigation system using ROS for an autonomous robot.
- Developed algorithms for path planning, obstacle detection, and avoidance.
- Tested and deployed the system in various production environments, ensuring robustness and reliability.
- Generated detailed documentation for the project.

SKILLS & OTHER

- Programming: Python, C/C++, MATLAB, Java
- AI Frameworks: TensorFlow, PyTorch
- SolidWorks
- Blender, Unity 3D, ROS
- Project Management: Jira, Miro, MS Office
- Development Tools: Git

CERTIFICATIONS

- Certification 2 Certified **SOLIDWORKS** 3D Mold Creator – Associate
- Certified SOLIDWORKS CAD Design – Associate
- **Jira** Fundamentals Badge & **Miro** Essentials
- Deep Learning with OpenCV: Image Recognition
- **Python** Practice: Real-World Coding Challenges

ACHIEVEMENTS & AWARDS

- Top **Robotics** Voice'24 on LinkedIn
- Top **Programming** Voice'24 on LinkedIn
- Certified SOLIDWORKS CAD design - Associate