SRINIDHI SHANKAR JAIN

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SUMMARY

Mechatronics engineer with practical experience in control systems, automation, and embedded technologies. Familiar with web development and currently learning artificial intelligence for industrial applications. Gaining exposure to TwinCAT for automation and interested in bridging mechanical, electrical, and software domains.

TECHNICAL SKILLS

- Mechanical & Mechatronics Engineering: CAD (Fusion 360, SolidWorks), MATLAB, Motion Systems, Sensor Integration, Pneumatics & Actuators.
- Embedded Systems & Electronics: Arduino, Raspberry Pi, STM32 (ARM Cortex), BTT Octopus, Atmega328p, PCB Soldering & Debugging.
- Industrial Automation & Controls: TwinCAT-Software Development, Siemens SINUMERIK, PROFIBUS/PROFINET, Basics of PLC Programming.
- **Programming & Scripting:** Python, C++, Java.
- Language Proficiency: English (Native Speaker C1), German (Working Proficiency A2)

PROFESSIONAL EXPERIENCE

REVO FOODS Gmbh [Vienna, Austria]

09/2024 - 02/2025

Mechatronics & Software Engineering Intern

- Revo Foods Gmbh is a plant based seafoods producing company that uses advanced 3D food printing technology to produce vegan alternatives.
- Troubleshot and optimized 3D printer control systems using ARM embedded systems, integrating stepper motors, T6 servo motors, drivers and sensors.
- Designed 3D-printed case using Fusion 360, Bambu studio and developed a motor test station for simultaneous stepper and servo motor inspection.
- Conducted research on Siemens Sinumerik and other automation systems, drawing a schematic diagram using Draw.io to support system upgrades and enhance production efficiency.
- Comprehensive research and review of actuators which are Profibus and Profinet compatible and further research on safety standards and sustainability of the components.

PRO-SPEC PERFORMANCE PARTS [Bengaluru, India]

01/2023 - 07/2023

Senior Operations Engineer

- Streamlined daily operations by integrating demand forecasting with inventory optimization to minimize lead times and ensured an uninterrupted supply chain with advanced Excel and ERP system.
- Developed and standardized Product Life Cycle Management (PLM) principles for two distinct product families, ensuring efficient development, tracking, and end-of-life strategies.
- Implemented the integration of Amazon MFN (Merchant Fulfilled Network) and FBA (Fulfilled by Amazon) marketplaces into Zoho Books, automating inventory synchronization, order management, and financial reporting
- Implemented Just-in-Time (JIT) manufacturing and procurement processes by synchronizing material requirements planning (MRP) with supplier schedules, minimizing inventory holding costs.

PROJECTS

TWO-DIMENSIONAL PEN PLOTTER

Objective: To design and develop a high-precision XY pen plotter that can reliably draw complex architectural drawing such as Nicolaus House.

Responsibilities:

- Designed and 3D-printed custom parts using CAD software.
- Conducted code testing, debugging, and calibration to ensure high-precision performance.
- Developed and implemented the V-model development process to integrate mechanical, electronic, and software components.

ANOMALY DETECTION FOR PREDICTIVE MAINTENANCE

Objective: To design and develop a predictive maintenance system that detects anomalies in real-time, reducing downtime and improving operational efficiency.

Responsibilities:

- Developed a predictive maintenance solution for a mechatronic system using Python and Jupyter Notebook, enabling early detection of potential failures.
- Implemented anomaly detection algorithms on sensor data, improving system reliability through proactive maintenance insights.
- Visualized and analyzed machine sensor patterns to identify abnormal behavior, enhancing understanding of operational risks.

WEBSITE DEVELOPMENT [CVwebsite]

Objective: To design and deploy a professional personal website serving as an online CV, showcasing skills, experience, and projects in a structured and engaging format.

Responsibilities:

- Built a responsive portfolio website using React (JSX, JavaScript) with CSS for styling, ensuring a modern and user-friendly interface.
- Deployed the website using Vercel, enabling fast, reliable, and scalable online access for recruiters and networking purposes.

EDUCATION

Bachelor of Engineering in Mechanical Engineering

New Horizon College of Engineering, Bengaluru, India | 07/2018 – 07/2022

Masters of Engineering in Mechatronics & Robotics Engineering

Schmalkalden University of Applied Sciences, Schmalkalden, Germany | 10/2023 – Present

AWARDS & RECOGNITION

Deutschlandstipendium 2024 - Awarded at Schmalkalden University of Applied Sciences **IEEE Bengaluru Section** Best Student Volunteer Award 2023

HOBBY