

# PRAYAG GARG

## Automation & Project Engineer | Industry 4.0 | Smart Manufacturing | Process Excellence

+91 8700216275 | [gargprayag7@gmail.com](mailto:gargprayag7@gmail.com) | Gurugram, India

[linkedin.com/in/prayag-garg-a56905164](https://linkedin.com/in/prayag-garg-a56905164) | [github.com/PrayagGarg](https://github.com/PrayagGarg)

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### PROFESSIONAL SUMMARY

Results-driven Automation & Project Engineer with 3+ years of experience delivering Industry 4.0 and smart manufacturing solutions. Expert in developing middleware software (C#, Python) integrating PLC, SCADA, and IoT systems with enterprise databases for real-time production monitoring. Proven track record in implementing OCR, Vision Inspection, AMR robots, and full-plant traceability systems that enhance operational efficiency, reduce downtime by 40%, and improve customer satisfaction. Strong project execution skills with expertise in assembly line installation, supplier coordination, and automation system integration.

### EXPERIENCE

#### Automation Engineer | Sona Comstar | Mar 2024 – Present | Gurugram

- Spearheaded automation projects integrating AMR robots, OCR, vision inspection, and welding inspection machines, increasing throughput and inspection accuracy.
- Designed and implemented comprehensive plant traceability platform using SQL, C#, and Python for real-time part-level data tracking and analytics.
- Developed middleware applications enabling seamless PLC-to-database communication and automated production control.
- Improved customer satisfaction by enhancing transparency and traceability across manufacturing processes.
- Installed and commissioned multiple automated assembly lines to support new product launches and improve productivity.
- Managed PLC-SCADA-IoT system integration for seamless data exchange, monitoring, and reporting.
- Led automation line-shifting projects ensuring zero production loss during transitions.
- Collaborated cross-functionally to deploy AR/VR visualization tools for digital twin simulations and operator training.

#### Automation & Project Engineer | Ascent Business Technology | Jan 2023 – Mar 2024 | Gurugram

- Executed automation and IoT integration projects bridging machine data with enterprise databases.
- Developed middleware applications in C# and Python enabling IoT devices and PLCs to communicate directly with SQL and cloud services.
- Created software solutions for sending commands to PLCs and controlling production line operations.
- Implemented SCADA dashboards for live process visualization and performance tracking.
- Coordinated with suppliers for automation system procurement, testing, and integration.
- Documented project milestones, performed quality audits, and ensured on-time, budget-compliant delivery.

#### Automation Trainee | Ducat | Jun 2022 – Dec 2022 | Gurugram

- Supported PLC communication and IoT integration for small-scale automation prototypes.
- Assisted in development of SCADA simulation modules and IoT-enabled process visualization.
- Conducted troubleshooting and testing of machine communication interfaces.

### KEY PROJECTS

- AMR Implementation – Automated material logistics reducing manual handling by 40%.
- OCR & Vision Inspection System – Deployed AI-powered OCR and vision systems for defect detection and code recognition.
- Welding Inspection Automation – Introduced automated weld quality validation using digital inspection cameras.
- Plant Traceability Platform – Built comprehensive software ecosystem capturing every manufactured part's lifecycle data for enhanced transparency.
- Assembly Line Setup – Designed, installed, and optimized assembly lines for new product introductions with full automation integration.
- Smart Manufacturing Dashboard – Developed Angular + Spring Boot dashboard for live OEE, defect tracking, and production monitoring.

### TECHNICAL SKILLS

- Programming: C#, Python, Java
- Web: Angular, Spring Boot
- Databases: SQL, PostgreSQL
- Automation: PLC Integration (Siemens, Allen-Bradley, Schneider), SCADA, IoT, AMR Robots
- Industry 4.0: Vision Systems, OCR, Welding Inspection Automation

- Software: Middleware, API Integration, Real-time Data Processing
- Visualization & Reporting: Power BI, Excel, PowerPoint, AR/VR Tools, Digital Twin Simulation
- Project Management: Assembly Line Setup, Supplier Coordination, Process Optimization
- Manufacturing: Traceability Systems, Production Analytics

## **EDUCATION**

- MCA – Gurugram University (2023–2025)
- B.Tech, Mechanical Engineering – DCRUST, Sonipat (2016–2020)
- 12th CBSE – Sidheshwar Public School, Gurugram (2015–2016)
- 10th CBSE – Sidheshwar Public School, Gurugram (2013–2014)

## **ACHIEVEMENTS**

- GATE 2022 Qualified – Demonstrated strong analytical and problem-solving ability.
- Developed full-plant traceability improving data visibility and customer confidence.
- Recognized for successful automation and supplier coordination execution.
- Delivered automation projects with zero production downtime and cost efficiency.

## **LANGUAGES**

English – Proficient | Hindi – Native