Carlos H. Torres

Smart Manufacturing, Industrial AI & Enterprise Operations Executive

Where the Shop Floor Meets Enterprise AI — Robotics · Intelligent Operations · Enterprise Transformation

Executive who turns factory floors into intelligent operations — connecting manufacturing execution platforms, AI vision systems, industrial robotics, automation, controls engineering, and enterprise platforms into a unified layer that scales across sites. At Pella, driving simultaneous modernization of MES, PLM, CPQ, and ERP while deploying the intelligent operations layer on top — recognized with three industry awards within the two years. Before that, at Ericsson built and led a 70+ person global Industry 4.0 team earning designation as one of the first three WEF Lighthouse Factories in the world.

Areas of Expertise

- Industries: Manufacturing | Telecomm | Transportation & Rail
- Strategy: Automation | IIoT | Intelligent Operations | AI
- Systems: MES | ERP | PLM | QMS
- Tech Stack: OT Platforms | Industrial IoT | Edge Computing | Cloud Data Platforms | Industrial AI & Vision Systems
- Delivery: Agile & SAFe | Portfolio Governance | Product & Project Management

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Impact Highlights

- At Pella, achieved **a 33% reduction in customer quality issues** leveraging Vision AI, accelerated equipment issue resolution by **10% leveraging AI-powered maintenance assistant**, **improved front line employe experience**, reduced attrition, and **increased first pass yiel**d via voice directed work instructions, **exposed ~$13% of material spend as unidentified consumption**, unlocking a major opportunity for improved material traceability, cost control, and operational accountability.
- At Ericsson, achieved a **54% reduction in unplanned equipment downtime**, **24% improvement in production efficiency** and a **22% increase in equipment utilization,** and Championed Industry 4.0 initiatives, resulting in Ericsson's USA 5G Smart Factory being distinguished **first three Worle Economic Forum Lighthouse Factories in the world.**

WORK EXPERIENCE

Pella Corp ***August 2024 –Present***
Head of Digital Transformation (Operations)
Lead enterprise digital manufacturing and intelligent operations initiatives across Pella's production network, integrating operational technology, manufacturing systems, and data platforms to improve productivity, quality performance, and operational visibility.

Core Leadership Areas

- **Digital Manufacturing Platforms** – Lead the architecture & deployment of enterprise manufacturing systems including MES, AI Vision, hardware automation, real time production visibility to enable connected factories and data- driven operational performance.
- **Enterprise System Transformation –** Leading a large-scale modernizing of Pella enterprise systems (PLM, CPQ, ERP, MES).
- **Operations Data & Insights** – Building connected operations data ecosystems that surface actionable intelligence across labor productivity, machine performance, quality trends, and supply chain flow.
- **Awards:** 2026 Future of Manufacturing award for Pella's Industrial AI Strategy for Quality and Efficiency at Scale**,** 2025 Future of Manufacturing award for our voice guided work instructions by MLC**,** AI Breakthrough of the Year for AI Maintenance Doctor by the Technology Association of Iowa.

Ericsson ***August 2020 – August 2024***
Global Head of Industry 4.0, Global Head of I4.0 Manufacturing Data, and 5G in Manufacturing Leader Sep 2022 – August 2024
Appointed Global Head of I4.0 Manufacturing Data responsible for establishing a unified global technology stack, creating & implementing a global smart manufacturing data governance strategy & data upskilling program.

Head of Industry 4.0 USA 5G Smart Factory August 2020 – August 2024
Deliver innovative smart manufacturing solutions and technology that enables Ericsson to consistently meet customer expectations, maximize production capacity, and drive adoption of advanced cellular technologies.

- **Department Head for Industry 4.0 & Smart Manufacturing** - Lead Hardware Automation Engineering, Disruption & Innovation, Application Development, Data & Analytics, Software Engineering & Architecture & IT teams of ~70 employees disciplined in hardware engineering, IT infrastructure and software development.
- **Leader of Leaders** with current team size **70+ employees** globally.
- **Advanced technologies spokesperson** - 100+ customer and partner visits, including companies like Tesla, Verizon, Ford, John Deere.
- **Featured Publications** - PCMag.com, IndustryWeek.com, Bloomberg, Ericsson Blogs & CTIA Web Panels & Wireless U Seminar to State Legislatures.

BNSF Railway ***May 2006 - August 2020***
Sr. Manager – Data, Analytics & AI April 2020 - August 2020
Service Interruption Analytics & Lifecycle Management – Leveraged advanced data analytics, IIoT (Industrial Internet of Things), cloud computing & smart automation to quantify impact of planned and unplanned events on railway operations and determine causality to predict, prevent, and identify actionable opportunities to reduce impact of planned and unplanned train stop events.

Sr. Manager – Intelligent Automation & Advanced Analytics April 2018 - April 2020
Intelligent Automation – Identified and implemented initiatives to eliminate, consolidate, automate and / or augment work processes for efficiency gains.
Advanced Analytics - Specialized in advanced analysis to extract insights from information by iterating rapidly to summarize and visualize large data.

Manager – Application Development (Web, Agile & IIoT) *January 2015 – April 2018*
Equipment Quality Management System (EQMS) - is a high severity system critical to railroad operations which includes roughly 4000 detectors, edge IIoT devices, of different types, producing 35 million daily readings. The team leveraged machine learning algorithms to improve the quality of data through better matching of readings to correct cars and by predicting car component failures. Resulting in more robust preventative maintenance plans to address challenges before they arise.

Various Positions *May 2006 – January 2015*

EDUCATION

Bachelor of Science in Electrical Engineering - Texas A&M University Kingsville