

Craig Lundgren

Data & AI Engineer · ETL Architecture · LLM Engineering · Process Analytics

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Greater Minneapolis–St. Paul, MN

ABOUT

Data and AI engineer with a 27-year foundation in manufacturing and quality engineering. I build Python-based ETL pipelines, modular data architectures, and LLM-assisted tools that automate analysis and support decision-making across engineering and quality functions. My background in Lean Six Sigma, DOE, and corrective action systems gives me deep exposure to complex operational data and the challenges involved in interpreting it effectively.

SKILLS & TECHNOLOGIES

Data Engineering & ETL	Python · Pandas · SQL · ETL Pipelines · Data Modeling · PostgreSQL	AI & LLM Engineering	LLM Applications · Agentic AI · Gradio · Document Analysis · REST APIs
Infrastructure	Docker · Linux · Containerized Services · Automation Pipelines	Analytics & Statistics	Statistical Analysis · Process Capability · Trend Detection · Minitab
Quality Systems	Lean Six Sigma · FMEA · CAPA · DOE · ISO 9001 · Supplier Management	Certifications	Certified Quality Engineer (CQE) · ASQ · Six Sigma Black Belt

EXPERIENCE

Reell Precision Manufacturing Corporation

Aug 2023 – Present

Quality Engineering Manager — Saint Paul, MN

Lead data-driven process improvement and analytics initiatives within a manufacturing quality organization. Design and build data engineering pipelines, analytics systems, and AI-assisted tools to transform operational and quality data into actionable insights.

- Design and develop Python-based ETL pipelines to ingest, validate, and transform operational and quality datasets
- Architect a modular, configuration-driven ETL framework allowing new data sources to be integrated without code changes
- Build LLM-assisted document analysis tools to extract structured insights from complex technical documentation
- Implement automated data validation and transformation workflows to improve data reliability
- Apply statistical analysis to manufacturing process data: capability studies, trend detection, risk evaluation
- Deploy and manage containerized data tools and services using Docker and Linux environments

Python · ETL · LLM Engineering · Docker · Statistical Analysis · CAPA · ISO 9001

Nilfisk

Apr 2021 – Aug 2023

Quality Manager — Brooklyn Park, MN

Responsible for overall site quality including suppliers, incoming inspection, in-process quality, final quality, and customer satisfaction. Led a team of Quality Engineers, Technicians, and Inspectors. Maintained ISO 9001 & ISO 14001 compliance.

ISO 9001 · ISO 14001 · Supplier Quality · Team Leadership

Global Traffic Technologies, LLC

Aug 2015 – Oct 2020

Quality Manager — MN

Led quality operations supporting engineering and manufacturing for traffic management technology products across a 5-year tenure.

Parker Hannifin

Jun 2013 – Aug 2015

Sr. Quality Engineer — New Hope, MN

Senior quality engineering supporting manufacturing operations and process improvement initiatives.

Ingersoll Rand — Climate Solutions / St. Paul Controls

Oct 2005 – Mar 2013

Quality Manager, Six Sigma Black Belt — MN

New product introductions, process qualifications, warranty return analysis, and manufacturing process quality management. Implemented Lean principles and led cross-functional improvement teams using FMEA, capability studies, control plans, Gage R&R, DOE, and Apollo Root Cause Analysis.

Six Sigma Black Belt · Lean · FMEA · DOE · Control Plans · Minitab

Earlier Roles: Goodrich Sensor Systems · Eastman Kodak · Cummins Inc.

1999 – 2005

Quality Engineer — MN

Six years across aerospace sensors, precision contract manufacturing, and industrial power generation. Responsibilities included supplier quality, process FMEAs, customer interface with military and international accounts.

Aerospace · Supplier Quality · Manufacturing Quality

EDUCATION

M.S. Manufacturing Systems Engineering

Manufacturing Systems Engineering

2005 – 2009

B.S. Mechanical Engineering

Mechanical Engineering

1995 – 1999