Company Name: **nirvign.ai**

Tagline: Autonomous AI Agent powering the factory of the future

Founder/CEO: Arnav Somani

Problem

Manufacturing today is:

- Reactive – failures detected too late
- Siloed – maintenance, quality, planning don’t talk much
- Manual decision-making despite massive data
- High downtime, scrap, energy, and labour costs

Result:

Factories lose millions annually due to unplanned downtime, inefficiency, and slow decisions which results in lost hours, scrap, and missed deliveries

Why Existing Solution Fail ?

Manufacturing doesn’t need another dashboard. It needs a decision maker. Also, manufacturing fails because it has:

- Point Solutions (only maintenance/ only quality)
- Rule-based systems -> don’t scale
- No autonomy, no collaboration between systems

They need intelligent agents that:

- Understands what’s happening
- Knows standard operating procedures
- Coordinates people and systems
- Acts in real time—safely

Solution

Nirvign – A Multi-Agent AI Platform for Manufacturing

A network of autonomous AI agents that:

- Monitor machines & processes
- Predict failures & inefficiencies
- Diagnoses issues in real time
- Recommends the next best action
- Executes workflows with human approval

Think “AI coworkers for the factory floor”.

What the Agent Actually Does ?

When a problem occurs, the agent:

- Detects the issue (downtime, scrap, drift)
- Identifies likely root causes
- Suggests corrective actions
- Assigns tasks to the right role
- Verifies resolution and closes the loop

No alerts. No guesswork. Just decisions.

Use Case

Core Manufacturing Use Cases:

- Predictive Maintenance → Reduce downtime by 30–50%
- Quality Inspection → Detect defects early
- Production Optimization → Improve throughput
- Energy Optimization → Lower energy costs
- Inventory & Planning → Smarter scheduling

Initial wedge:

Predictive Maintenance (large pain, fast ROI, easy sell)

Why Multi-Agent is the Breakthrough ?

Why Multi-Agent AI is the Breakthrough:

Traditional AI	Nirvign
Single model	Multiple specialized agents
Static	Continuous learning
Advisory only	Autonomous + collaborative
Siloed	System-wide intelligence

Market Opportunity

Manufacturing is undergoing a shift from software systems → autonomous AI agents:

- Global Manufacturing Software Spend: ~$300B+
- Industrial AI & Analytics: ~$20–25B, growing ~20% CAGR
- Factory Operations (Manufacturing Execution System, CMMS, Scheduling, Quality): ~$40B+

Serviceable Addressable Market (SAM)

- ~150,000 mid-to-large factories globally
- Avg. spend potential: $50K–250K per factory per year
- $10–20B SAM

Business Impact

Operational Impact:

- 20–40% reduction in unplanned downtime
- 15–30% faster mean time to repair (MTTR)
- 10–25% improvement in overall equipment effectiveness (OEE)

Quality & Cost Impact:

- 15–30% reduction in scrap and rework
- Earlier defect containment → fewer customer escapes
- Lower maintenance and spare-parts costs

Business Impact

Workforce Impact:

- Faster issue resolution with less tribal knowledge
- Reduced operator and supervisor workload
- Improved shift handovers and accountability

Competitive Landscape

Competitors:

- Traditional CMMS (Computerized Maintenance Management System)
- Predictive maintenance tools
- Manufacturing analytics platforms

Technology Moat

- Multi - Agent-based architecture
- LLM + time-series + reinforcement learning
- Domain-specific manufacturing knowledge
- Cloud intelligence
- Feedback loops from human + machine actions

Vision

The Future We're Building

A fully autonomous factory where AI agents plan, predict, and act—continuously.

THANK YOU!