

# John Nielsen

Senior Platform / Backend Engineer

SaaS Infrastructure • CI/CD • Production Operations • Distributed Systems

Murcia, Spain (Remote) • Danish Citizen

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Available for contract and consulting engagements

## Summary

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Senior backend and platform engineer with 20+ years of experience building and operating large-scale SaaS systems. Proven track record running production infrastructure, CI/CD platforms, and high-traffic e-commerce services.

Experienced in operating systems at national scale, including platforms serving **600+ companies** and handling roughly **3% of Denmark's online retail turnover**. Combines deep backend engineering with infrastructure ownership, production operations, and pragmatic use of modern development tooling including LLM-assisted workflows.

## Core Skills

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- **Backend Systems:** C#, .NET, REST APIs, distributed services
- **Infrastructure:** Kubernetes, Linux, IIS, Proxmox
- **Data Platforms:** SQL Server, MongoDB, Solr
- **DevOps:** Git, TeamCity, Octopus Deploy, CI/CD automation
- **Observability:** Grafana, Loki
- **Additional:** Rust systems programming, LLM-integrated systems, AI-assisted development workflows

## Professional Experience

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### Senior Backend / Systems Engineer

2012 – Present

MCB — SaaS e-commerce platform provider

### Selected Impact

- Operated and optimized a SaaS e-commerce platform which at peak scale served **600+ companies** and handled approximately **3% of Denmark's online retail turnover**
- Designed and implemented company-wide **TeamCity CI/CD infrastructure** supporting **100+ build and deployment pipelines**
- Led migration of the engineering organization from **Subversion to Git**, defining workflows and training **10–15 engineers**
- Long-term **on-call production engineer** responsible for incident response and operational decision-making during outages and Black Friday traffic peaks

### Responsibilities and Contributions

- Backend and infrastructure engineer responsible for core services and infrastructure of a large SaaS e-commerce platform.
- Operated and optimized production infrastructure including **4 high-memory IIS servers** and a **multi-terabyte SQL Server environment** with database size peaking around **1 TB**
- Designed backend architecture for the **MCB.cloud ERP platform** and trained a **six-engineer team in Vietnam** responsible for implementation
- Implemented **Solr-based search** for large product catalogs and search-intensive e-commerce workloads
- Built backend services for image processing, marketplace feed generation (Google Shopping and others), data cleanup jobs, and related platform automation
- Integrated **LLM-assisted development workflows and tooling**, structuring codebases with strict architectural boundaries to ensure reliability and determinism when incorporating AI-generated code
- Prototyped and evaluated **LLM-driven search and retrieval patterns** (semantic search, prompt-based querying) for potential integration into platform services
- Maintained internal **Kubernetes platform** on **3 physical nodes** running Grafana, Loki, MongoDB, and business-critical integration services
- Contributed to platform security, operational hardening, and reliability improvements in collaboration with infrastructure and security engineers

## **System Analyst / Project Lead / Developer**

CDROM/SA, Murcia, Spain

2008 – 2011

- Developed and maintained ERP system used internally by the company
- Introduced Agile and SCRUM development practices
- Worked across Python, PHP, Java and Linux-based systems

## **Support Manager**

Klee Group, France

2007

- Managed technical support team of four engineers
- Provided multilingual technical support for enterprise software

## **IT Support Engineer**

Supporter, France

2003 – 2007

- Enterprise IT support for major international clients including IBM, Universal Studios and AC Nielsen

## **Projects**

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### **Plankton — Personal Project**

- Rust-based machine learning system for financial time-series modelling
- Custom neural network architecture and data pipeline focused on performance and memory efficiency
- Designed system for unstable, noisy optimization landscapes (financial data)
- Used LLM-assisted workflows to accelerate experimentation, debugging, and architectural iteration under tight performance constraints

### **LLM-Driven Search & Retrieval System**

- Designed and implemented semantic search system using vector embeddings and LLM-assisted query refinement
- Built conversational retrieval interface enabling natural-language exploration of structured datasets
- Designed for latency, cost, and unpredictable LLM output constraints, comparing local and hosted inference to ensure consistent and reliable behavior

## **Education**

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### **Datamatiker (Computer Science)**

IT Akademiet, Ikast

2000 – 2002