THOMAS NYS

Senior Data Architect and Engineer

Hamme, Belgium · +32 475 269 452 · hello@thomasnys.com · thomasnys.com · linkedin.com/in/thomasnys

---

PROFILE

I help companies cut data chaos, technical debt, and cloud waste so their platforms can actually support the next stage of growth.

With a background in software engineering and over a decade in data engineering and architecture, I sit at the intersection of architecture, hands-on delivery, and organizational dynamics. That means I don't just design diagrams—I work with teams to make systems real, reliable, and economically sensible.

I care about healthy teams, scalable systems, and data work that actually pays for itself.

EXPERIENCE

Cerba Research

Senior Data Architect | 2023 – 2025 | Ghent (Freelance)

Cerba Research provides high-quality, specialized laboratory and diagnostic solutions, using patient data and scientific insight to shape and advance clinical trials. With a global footprint and access to leading regional labs, data, technology, and patients, they support biotech, pharma, and IVD organizations worldwide.

I was hired to manage and lead three strategic data initiatives:

1. The redevelopment of the external client portal
2. The implementation of a GxP-validated enterprise lakehouse
3. The design and delivery of an enterprise Data Hub for integration

All initiatives involved replacing legacy systems and delivering compliant and scalable platforms aligned with Cerba's digital transformation objectives.

- Provided end-to-end delivery leadership: technical direction, project planning, team guidance, and stakeholder management via regular steering committees
- Balanced long-term architectural decisions with short-term delivery constraints within a GxP-regulated environment
- Ensured secure, maintainable solutions through pragmatic and structured delivery practices

Client Portal (customer-facing legacy migration)

- Oversaw the redevelopment of the legacy portal using a modern PHP-based stack with improved modularity, performance, and security

- Enabled external connectivity to brand portals and courier systems via API integrations
- Core technologies: PHP 8.2, Laravel, MySQL, HTML5, CSS3, JavaScript
- Supporting tech: Composer, GitHub, REST APIs, Azure DevOps (CI/CD)

GxP-Validated Lakehouse

- Designed and delivered a lakehouse for GxP-compliant analytics and reporting
- Replaced fragmented legacy reporting systems with governed, auditable data pipelines
- Core technologies: Azure Data Lake Gen2, Databricks, dbt, SQL Server, Power BI
- Supporting tech: Azure DevOps, Azure Data Factory, Azure Key Vault, Microsoft Purview

GxP-Validated Enterprise Data Hub

Established a Data Hub that decouples data producers and consumers, ensuring flexibility, scalability, and governance while enabling teams to produce and consume data independently without direct dependencies.

Challenges addressed:
- Tight producer-consumer coupling hindering scalability and innovation
- Integration complexity across diverse data formats and legacy systems
- Limited real-time monitoring and visibility into data pipelines
- Absence of centralized governance for data quality, lineage, and lifecycle management
- Data discovery challenges and inconsistent definitions across teams

Delivered:
- Built a governed, auditable enterprise Data Hub
- Enabled real-time data exchange and enterprise-wide integration across critical systems
- Delivered capabilities for streaming ingestion, semantic mapping, transformation, and governed exposure to consuming applications
- Core technologies: Azure Databricks, Python FastAPI, Azure Event Hubs
- Supporting tech: Azure DevOps, Azure Key Vault, Microsoft Purview, FreshService, Azure Monitor / Log Analytics

Port of Antwerp-Bruges

Lead Data Engineer and Architect | 2021 – 2023 | Antwerp (Freelance)

The Port of Antwerp-Bruges is the second largest port in Europe. With connections to more than 800 destinations, it connects the European continent to the rest of the world. Port of Antwerp-Bruges generates 73,700 direct jobs and no less than €20 billion in added value.

- Led a team of Data Engineers building the next version of the port's data platform
- Created a more engineered/automated version of the existing platform and extended use cases beyond simple reporting
- Facilitated and co-supervised an ML-ops trajectory maturing the port's data science / ML capabilities
- Migrated around 150 on-prem SQL Server artifacts to a new Cloud Data Warehouse

Technologies: Azure (data and ML services), dbt, Kafka, Terraform, GitLab CI, Python, Qlik Replicate, Oracle, Databricks, SQL Server

Easyfairs

Tech Lead Data Engineering | 2019 – 2021 | Brussels (Freelance)

Easyfairs is one of the Top 20 events companies in the world, with multi-format events spanning B2B professional and trade shows, B2C exhibitions, summits, congresses, and conferences.

• Joined Easyfairs HQ as one of the first people on the data intelligence team
• Architected and bootstrapped what became their prime cloud data platform built on Google Cloud
• Opened up data access across all verticals in the company
• Facilitated advanced analytics/machine learning and built standardized reports on top of all company data
• Technical leadership of over 6 BI developers and Data Engineers
• Introduced best practices regarding architectural design, deployment, infrastructure as code, and security
• Successfully cross-pollinated data practices to other teams in the IT department

Technologies: Google Cloud Platform, dbt, Confluent Kafka, Scrapy, Google Kubernetes Service, BigQuery, BigQuery ML, Cloud Composer (Airflow), AutoML, AI Platform (TensorFlow)

Big Industries

Senior Data Engineer and Team Lead | 2018 – 2019 | Kontich

Big Industries is Belgium's leading Big Data systems integrator, offering expert consultancy for architecture definition, data lakes on-premise or in the cloud, and data engineering.

• Established a clear and realistic learning path for all distinct roles in the company (no defined onboarding flow existed before)
• Worked with big multinational organizations across manufacturing, public services, accounting, and energy market

Client Projects:

• **Bridgestone:** IoT / data lake project on Azure (HDInsight, Hive, Event Hubs, Azure Data Lake Store, Spark Structured Streaming)
• **Nike:** Data lake on AWS (Spark, Kubernetes, S3, Athena, Airflow)
• **Atrias:** Data integration project on Azure (Kubernetes, Confluent Kafka, CosmosDB, Azure Data Lake Store)
• **Vlaams Energie Agentschap:** Data lake on AWS (S3, Athena, AuroraDB)

Foodpairing

Data Engineer | 2016 – 2018 | Ghent

Foodpairing helps food companies launch new successful flavors through a unique mix of data and food science. I was recruited because of my strong background in engineering and food.

- Introduced Python as a common ground language, leading to a massive rise in productivity and cross-team collaborations (significant variance in programming languages existed before, causing colossal lead and delivery times)
- Built many solutions that shaped their data strategy: web crawlers, ETL pipelines with Spark, dashboards in Bokeh, and custom reporting tools that made data scientists and analysts more productive

Rialto

Software Engineer | 2015 – 2016 | Ghent

Openminds

Software Engineer | 2014 – 2015 | Ghent

City of Lokeren

IT Support Engineer | 2011 – 2014 | Lokeren

Various Michelin-Star Restaurants

Chef | 2007 – 2011 | Belgium and France

Worked as a chef in several Michelin-star restaurants, holding positions from commis over chef de partie to sous-chef.

SKILLS

Cloud & Data Platforms: Azure, Google Cloud Platform, Databricks, AWS, Snowflake

Data Engineering: dbt, Apache Airflow, Apache Spark, Apache Kafka, Python, SQL

CI/CD & Infrastructure: Terraform, GitLab CI, Azure DevOps, GitHub Actions

Languages: Dutch (native), English (fluent), French (professional)

CERTIFICATES

- The Open Group Certified: TOGAF® Enterprise Architecture Practitioner
- Confluent Certified Developer for Apache Kafka®
- Microsoft Certified: Azure AI Fundamentals
- Microsoft Certified: Azure Data Fundamentals
- Microsoft Certified: Azure Fundamentals
- Azure Databricks Platform Architect

- Databricks Platform Administrator
- Databricks Generative AI Fundamentals
- Databricks Fundamentals
- Confluent Fundamentals Accreditation
- AI Agents Fundamentals (Hugging Face)
- Agents Course (Hugging Face)
- Fundamentals of MCP (Hugging Face)

EDUCATION

- **Java EE Developer** – VDAB (2014)
- **Cook and Waiter** – Hotel and Catering School Ter Duinen, Koksijde (2008)
- **Humane Wetenschappen** – Koninklijk Atheneum, Aalst (2004)

HOBBIES

- (Ultra)Running & weightlifting
- Movies & series
- Reading