David Worsley-Tonks

AI Engineering Lead | AI Systems Architecture | Data Strategy

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With over 15 years of experience in software and data engineering, I have progressed from full-stack development into senior technical leadership and executive roles, including CTO positions, with a consistent focus on designing, industrialising, and operating complex, data-driven systems in production environments.

Alongside hands-on engineering, I have built, rebuilt, and led multidisciplinary teams, defined data and technology strategies, and ensured engineering execution remained closely aligned with product and business objectives.

My work centres on the design and operation of production-grade data platforms and AI systems across the full value chain, from data pipelines and distributed architectures to LLM-based systems, RAG architectures, MLOps, CI/CD, and API deployment.

My approach combines high technical standards, long-term platform thinking, and pragmatic leadership, with a clear objective: turning data into reliable, scalable, and durable products and systems, while building teams capable of operating them effectively in production.

EXPERIENCE

Data & AI Engineer - Platforms & Systems

OPENCLASSROOMS

September 2024 – Present

Lyon, Auvergne-Rhône-Alpes, France

After several years in senior technical and leadership roles, I undertook a focused deep-dive into data and artificial intelligence in production environments, with a clear objective: turning data into a strategic, reliable, and scalable asset.

This work is grounded in an end-to-end view of the data value chain, spanning data collection and structuring through to advanced exploitation in support of products, decision-making, and business performance.

The emphasis was placed on designing robust data platforms, establishing data governance, industrialising systems, and bringing complex solutions into production, using AI as a lever for innovation and differentiation.

Key areas of work and study included:

- Data engineering and large-scale data processing (quality, reliability, performance)
- Data architecture, pipelines, APIs, and usage-driven data products
- Data governance, security, compliance, and reference data management
- Applied AI: LLM-based systems, RAG architectures, SFT/DPO, supervised models
- MLOps lifecycle, CI/CD, monitoring, and reproducibility
- Production-ready deployments with a strong focus on customer and business impact

This work combines a structured training program (AI Engineer) with hands-on projects, aimed at designing and operating durable, scalable data and AI systems aligned with product and business objectives.

Data & AI Platform Engineering   Production AI Systems   Data Engineering   LLM-based Systems   RAG Architectures

MLOps   DevOps

Chief Technology Officer (CTO)

April 2022 – April 2024
Lyon, Auvergne-Rhône-Alpes, France • Hybrid

Led the company's technology strategy and innovation roadmap, with end-to-end responsibility for engineering performance and the delivery of core platforms and production-grade systems.

Rebuilt and scaled the engineering organization, with a strong focus on technical hiring, team structuring, and operational efficiency. Built and consolidated high-performing teams, including collaboration with nearshore partners and external service providers, while ensuring effective coordination across distributed environments.

Defined and executed the cloud strategy on Microsoft Azure, covering cloud architecture, CI/CD pipelines, infrastructure automation, and production operations. Actively contributed to FinOps initiatives to optimize cloud costs and resource allocation in line with business priorities.

Supervised technical recruitment, team organization, and IT budget management, ensuring alignment between technical decisions, operational constraints, and long-term product and platform strategy.

View recommendation letter

Microsoft Azure · Azure DevOps · Terraform · Kubernetes · FinOps · DevOps · Hiring · Recruiting · Team Building

Project Manager / Technical Lead – Real Estate Platforms

VALORITY

March 2018 – April 2022
Lyon, Auvergne-Rhône-Alpes, France • Hybrid

I led the product management and technical delivery of two large-scale real estate applications, operating in production and handling high-value financial flows.

My responsibilities covered the full technical scope of the platforms, including system architecture, deployment strategy, and DevOps environments, with a strong focus on reliability, scalability, and security.

Key contributions included:

· Ownership of application architecture and technical decision-making

· Management of production deployments and DevOps pipelines

· Design and operation of systems processing high-volume financial transactions

· Close collaboration with product, business, and external stakeholders

· Ensuring platform stability, performance, and continuous delivery

These platforms supported core business activities and accounted for several million euros in monthly transactions, requiring a high level of operational rigor and technical robustness.

View recommendation letter

Product Development · Product Management · DevOps · Kubernetes · Docker · Symfony · Vue.js · MySQL · Redis

Technical Coordinator - Digital Agency

July 2017 – March 2018

Lyon, Auvergne-Rhône-Alpes, France • On-site

Coordinated the agency's development team, facilitating technical alignment, sprint planning, and regular team meetings. Supported developers in their skill progression through mentoring, technical guidance, and code reviews.

Played a key role in defining the technical architecture of client projects, ensuring scalability, maintainability, and alignment with business requirements. Contributed to project estimation and delivery planning, working closely with project managers and stakeholders.

Acted as a technical reference within the team, combining hands-on development with leadership responsibilities in an Agile/Scrum environment.

View recommendation letter

Project Coordination   Team Coordination   Team Management   Team Training   Agile   Scrum

Lead Full-Stack Developer

JETPULP

October 2015 – June 2017

Lyon, Auvergne-Rhône-Alpes, France • On-site

Hands-on development across the full stack, with strong involvement in technical architecture design, technology choices, and project estimation. Delivered robust, scalable web applications while ensuring code quality and long-term maintainability.

Actively participated in client-facing activities, including technical demonstrations, solution explanations, and support during key project milestones. Worked closely with project managers and stakeholders to align technical execution with functional and business expectations.

Contributed to continuous improvement of development workflows and deployment practices in an Agile environment.

Agile   Scrum   Kanban   CI/CD   Docker   Node.js   AngularJS   Vue.js   MySQL   Redis

Freelance Full-Stack Developer

FREELANCER.COM

January 2013 – December 2015

Lyon, Auvergne-Rhône-Alpes, France • Remote

Design and delivery of custom web and data-driven projects for both private clients and businesses.

Worked extensively on data-intensive applications involving geospatial computation, distance calculations (Haversine), and large-scale datasets, with a strong focus on performance and reliability. Developed interactive and real-time web interfaces, including websites, dashboards, and custom applications, combining backend logic with rich frontend visualizations.

Hands-on experience with Canvas-based rendering, Node.js, and computer vision workflows using OpenCV, as well as real-time data handling and visualization.

Python   Node.js   MongoDB   Redis   MySQL   Symfony   AngularJS   D3.js   Socket.io

Lead Developer

January 2011 – January 2013

Lyon, Auvergne-Rhône-Alpes, France •On-site

Early-stage technical leadership within a startup environment. Designed and built the company's technical infrastructure, covering application architecture, networking, databases, and production environments.

Led the design and development of user interfaces and core backend systems, while ensuring reliability, performance, and scalability of the platform.

Managed and coordinated a team of 7 developers, providing technical guidance, mentoring, and day-to-day leadership.

PHP   JavaScript   PostgreSQL   MySQL   Redis   Postfix   DKIM   SPF   Zend Framework   jQuery

EDUCATION

Data & AI Engineer (Master degree)

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May 2025 – April 2026

Artificial Intelligence / Machine Learning / Data Engineering

Master-level training in Artificial Intelligence, combining solid theoretical foundations with a strong focus on real-world production use cases. The program covers advanced concepts in machine learning, data engineering, and AI systems design, while emphasizing end-to-end implementation.

Beyond academic knowledge and experimentation, I deliberately oriented my work toward production-grade AI systems: deployment, monitoring, scalability, reliability, and long-term maintainability. This approach bridges advanced AI techniques with the practical constraints of industrial environments, enabling the delivery of robust, usable, and sustainable AI solutions.

View completion of training

LLM   MLOps   RAG   SFT   DPO   RL

Software Developer - VAE (Bachelor's degree)

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September 2024 – April 2025

Software Development / Programming

Production of technical documentation, detailed project descriptions, architecture decisions, and production responsibilities across multiple real-world systems.

Validation of acquired experience based on more than 10 years of professional practice in software development, covering application design, development, deployment, and production maintenance.

The VAE process focused on structuring and formalizing real-world experience to demonstrate Bachelor-level technical, methodological, and professional competencies through concrete projects, architecture decisions, and production responsibilities.

View VAE certificate

DevOps   Docker   Symfony   AngularJS   Vue.js   PHP   MySQL   PostgreSQL   Redis

INTERESTS

I enjoy a broad mix of sports, including **squash**, **badminton**, and **rowing**. Over the past few years, however, my main passion has become **trail running and ultra-endurance**. This long-term commitment demands discipline, consistency, and resilience — the same qualities that shape my approach to engineering and to building systems that are meant to last.

A personal highlight was completing **La Diagonale des Fous** (**180+ km**, **10,500 m D+**).

View UTMB runner profile

I also enjoy travelling and discovering new cultures. I have lived **over 10 years abroad**, including **9 years in the UK** and **2 years in Hong Kong**. I am **bilingual in English and French**, and comfortable working in international, multicultural environments.

AI DEMO

If you have any questions or enquiries, please feel free to reach out and contact me directly.

In the meantime, if you would like a more interactive way to explore my background, projects, and technical approach, you may want to chat with **DavidGPT** - my AI assistant (available on my portfolio), designed to showcase part of my know-how through an LLM + RAG-based system with explicit source attribution.

Chat with DavidGPT