

Dirk Johannes (DJ) Human

Head of AI | Director of AI Research & Product

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Location: Amsterdam, Netherlands
Work authorization: Netherlands (Highly Skilled Migrant)

Professional Summary

AI research and product leader with a decade across all three sides of enterprise AI: buyer (First National Bank), vendor (DataRobot, Abacus.AI), and builder (Raw Power Labs). Took a blank-sheet generative AI (GenAI) research lab to a staged product portfolio with one line at market-fit in two years, authoring the product-line strategy, product roadmap, revenue model, and go-to-market pricing architecture behind an active investment process. Leads cross-functional teams across research, engineering, product, and sales, with executive-level stakeholder management; still ships production code (Python, Rust, TypeScript); patent-pending method for creating specialized large language models (LLMs). Seeking a senior AI leadership role where portfolio judgment and hands-on depth both matter.

Professional Experience

Raw Power Labs (Archon Group)

Director of Research and Incubation

Copenhagen, Denmark (remote from Amsterdam)

May 2024 - Present

- Lead 10 direct reports (4 researchers including a postdoc, plus two 3-person cross-functional product teams) while the company grew from 6 to 28. Own the research-to-product portfolio: a stage-gated pipeline with explicit build / partner / kill decisions across 10+ concurrent bets
- **Result:** Took the flagship on-device small language model (SLM) platform from zero to product-market fit with paying customers in two years. Originated it, shipped its automated fine-tuning MVP within 10 months, and built its model-evaluation stack; core method patent-pending (PCT filing)
- **Result:** Authored the product-line strategy and roadmap for a sovereign generative AI stack: data preparation, owned language models, knowledge graphs, asset generation, rights provenance
- **Result:** Built the portfolio revenue model and enterprise pricing architecture used in an active investment process. Redesigned pricing from per-model metering to flat platform fees gated by production use cases, adopted as the go-to-market model
- **Result:** Landed a technology partnership with a global semiconductor leader, re-engaging a stalled relationship through to approved co-marketing. A 500MB CPU-only model beat a frontier API model on latency at matched quality, becoming the joint demo case
- **Result:** Conceived both incubating product lines, a runtime generative-asset platform and a knowledge-graph engine for game-narrative consistency, taking each from concept to a staffed team. Wrote the embeddable Rust graph database (Cypher, C and Python APIs) inside the latter
- **Result:** Built an autonomous multi-agent system that completed hundreds of research and code tasks, each evaluated against explicit success criteria, now the team-wide knowledge base on our own GPUs. Also built the academic pipeline: a published university collaboration and a funded industry-track PhD proposal

Abacus.AI

Director of Data Science

Amsterdam, Netherlands

Oct 2022 - May 2024

- One of two worldwide leads building out the Customer Success Data Science team, and the team's banking and financial services specialist: landed the company's first bank customer and owned every bank thereafter, while remaining an individual contributor on customer machine learning and operations research problems
- Shipped customer-facing generative AI on the Abacus.AI platform: custom chat large language models (LLMs) and AI agents, across several industries. Worked cross-functionally with UI, DevOps, product and sales, at customer executive level
- **Result:** Cut a prospect's sales forecasting error by 50% with an LSTM-based model, a measured \$6 million saving in labour costs
- **Result:** Worked with the ML Engineering team to improve tree-based model implementations where zero-inflated targets hurt AutoML performance, dropping a customer's lifetime value forecasting error from 18% to 11%
- **Result:** Refined a customer's multiclass churn model, simplifying the model input features while increasing model AUC by 5%

DataRobot

Johannesburg, South Africa / Amsterdam, Netherlands

Senior Data Scientist

Jan 2022 - Oct 2022

- Foundational lead of a three-person, fully remote MEA pre-sales team; grew the Southern Europe and Emerging Markets team by 50% through strategic hiring and mentoring; collaborated with over three dozen organizations across two continents
- **Result:** Proved the value of AutoML at a gaming company, building and deploying a new 30-day customer lifetime value model: 50% error reduction, ~\$0.5M expected savings on digital marketing spend
- **Result:** Built, deployed and integrated a churn model into a state-owned bank's Oracle database in 3 days, against a prior 6-month, \$100,000 manual effort

DataRobot

Johannesburg, South Africa

Customer Facing Data Scientist

Mar 2020 - Dec 2021

- Delivered over a hundred enablement sessions on problem framing, data preparation, model building and interpretation, and output consumption; EMEA subject matter expert on model productionalisation, MLOps monitoring, and governance; banking industry expert
- **Result:** Helped a banking customer rebuild and deploy their real-time fraud model: 50% decrease in false negatives with no change in alert volume, saving the bank \$1 million annually
- **Result:** Migrated 12 models from local machines onto managed MLOps, automating the inference pipeline for the first time and saving hundreds of hours of manual work

First National Bank

Johannesburg, South Africa

Quantitative Analyst, then Senior Quantitative Analyst

Jan 2015 - Feb 2020

- Credit origination and collections scorecards, fraud, forecasting, A/B testing, and automated model-monitoring frameworks built from first principles; piloted SparkML for the property automated-valuation system
- **Result:** Built the bank's first bespoke subsidiary scorecard: 25% uplift in gini norm over the incumbent solution, decreasing the default rate by 150 basis points in its first year
- **Result:** Productionalised SQL data engineering pipelines processing 15 terabytes of transactional data daily for the banking app and the central feature store
- **Result:** Built and deployed a customer-facing spend prediction model still live in the bank's app, with a custom performance monitoring dashboard in Power BI

Skills

- **Artificial Intelligence and Machine Learning:** Generative AI (GenAI) | Large Language Models (LLMs) | Small Language Models (SLMs) | LLM Fine-Tuning | Retrieval-Augmented Generation (RAG) | Agentic AI and Multi-Agent Systems | Model Evaluation | Knowledge Graphs | Synthetic Data | On-Device and Edge Inference (llama.cpp) | Deep Learning | AutoML | Forecasting | Operations Research
- **Engineering and Data:** Python | Rust | TypeScript | SQL | MLOps | OpenTelemetry | Model Deployment, Monitoring and Governance | Data Engineering | AWS | Azure | Docker | Kubernetes | Spark
- **Leadership and Product:** AI Strategy | R&D Portfolio Management | Research-to-Product Incubation | Product Roadmap | Go-to-Market Strategy | Enterprise Pricing | Stakeholder Management | Cross-Functional Leadership | Team Building and Coaching | Technology and Academic Partnerships | EU AI Act Readiness

Education

Stellenbosch University · Master's degree: Operations Research, *Cum Laude* · Mar 2016 - Sep 2019

Stellenbosch University · BCom (Honours): Operations Research, *Cum Laude* · Feb 2014 - Nov 2014

Stellenbosch University · BSc: Mathematical Sciences · Feb 2011 - Nov 2013

Languages · English (fluent) · Afrikaans (native) · Dutch (advanced reading, basic conversational)

Patents, Publications and Presentations

- **Patent (inventor):** A Method for Creating Specialized Language Models · application PA/2025/30389, approved for PCT international filing (2026)
- **Journal (peer reviewed):** Two agent-based modeling and simulation papers on delaying the evolution of pest resistance to Bt sugarcane · Journal of Economic Entomology 116(4) 2023 (first author) and 118(1) 2025
- **Conference:** Research Log: From Relegation to Incubation (2026 · Game Days AI Summit, Malmö)
- **Webinar:** MLOps and Challenger Models Help Banks Make More Informed Decisions (2021 · Banking Dive)
- **Conference:** End-to-End AI Is Possible, And Even Easy, For Any Enterprise (2021 · DataCon Africa)
- **Blog:** How AI Can Help Banks Navigate the COVID-19 Disruption (2021 · DataRobot)