

ALEX GOLDHOORN

Senior Data Scientist

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Barcelona, Spain • Dutch/EU Citizen • Remote

PROFESSIONAL SUMMARY

Senior Data Scientist with **12+ years of industry experience** specializing in logistics optimization, discrete event simulation, and LLM agent systems. Proven track record building production systems serving 120,000+ users across 23 countries, delivering measurable cost reductions through data-driven optimization. PhD in Robotics with expertise in planning under uncertainty.

Industry Focus: Particularly interested in space, transportation, and high-tech industries where data-driven optimization, planning under uncertainty, and system reliability create real-world impact.

CORE SKILLS

Languages: Python, Go, C++, SQL

ML/AI: LLM Evaluation, Agent Systems, RAG, Machine Learning, Deep Learning

Optimization: Discrete Event Simulation, Vehicle Routing (VRP), Discrete Optimization

Tools: PyTorch, Google OR-Tools, DeepEval

Dev Tools: GitHub Copilot, Cursor, VS Code, bash/zsh, AWS

PROFESSIONAL EXPERIENCE

Senior Data Scientist • Meight (Freight Logistics) • Dec 2024 - Present

- **LLM Agent Evaluation:** Designed comprehensive evaluation framework combining classical ML metrics with LLM-as-a-judge evaluation (faithfulness, cost) for AI agents automating freight manager tasks, ensuring production reliability
- **Tour Optimization:** Developing algorithms integrating real-time telematics and EU driving-time regulations to optimize freight planning and reduce empty running, boosting Revenue Per Kilometer (RPK)

Senior Data Scientist • Glovo (On-Demand Delivery) • Nov 2019 - Nov 2024

- **Delivery Simulator:** Led architecture and refactor of discrete event simulator for Glovo's delivery network (20+ countries, 120,000+ couriers), enabling rapid experimentation and hyperparameter optimization across the full delivery lifecycle
- **Matching Optimization:** Built automated optimization pipeline for matching cost function, balancing delivery speed, courier earnings, and operational efficiency at global scale
- **Route Optimization (VRP):** Implemented Vehicle Routing Problem solution for Live Multibundling, enabling dynamic order batching and real-time route optimization, reducing delivery times and costs
- **Impact:** Optimization improvements reduced average delivery times by several minutes, translating to significant cost savings across the network

Senior R&D Software Developer • Atomian (Cognitive AI) • Jun 2017 - Nov 2019

- **Healthcare Data Engineering:** Built ETL pipelines to prepare data for Atomian's cognitive NLP platform, enabling the Medical Records product to extract structured data from unstructured patient reports and legal documents
- **Analytics & Prediction:** Developed prediction models and performed accuracy evaluation on extracted healthcare data, ensuring reliability for clinical applications

PhD Researcher • IRI - Institut de Robòtica (CSIC-UPC) • Apr 2011 - Jun 2017

- **Thesis:** "Searching and Tracking of Humans in Urban Environments by Humanoid Robots" - developed algorithms using POMCP, particle filters, and Reinforcement Learning
- **Validation:** Conducted 3km+ of autonomous experiments with humanoid robots in real-world urban settings, handling uncertainty and noisy sensors

EDUCATION

Doctor of Philosophy (PhD) in Automatic Control, Robotics and Computer Vision

Universitat Politècnica de Catalunya, Barcelona, Spain • 2011 - 2017

Master of Science (MSc) in Artificial Intelligence

University of Groningen, Netherlands • 2005 - 2008

Bachelor of Science (BSc) in Computing Science

University of Groningen, Netherlands • 2003 - 2006

CERTIFICATIONS

- **PyTorch: Fundamentals** - DeepLearning.AI (Feb 2026)
- **Agentic AI** - DeepLearning.AI (Nov 2025)
 - Short courses (Nov 2025 - Jan 2026): Automated Testing for LLMOps (CircleCI), Evaluating and Debugging Generative AI (Weights & Biases), Claude Code (Anthropic), Advanced RAG (TruEra/LlamaIndex), Hugging Face smolagents, Reinforcement Fine-Tuning LLMs (GRPO), Evaluating AI Agents, AI Agents in LangGraph, Agentic Knowledge Graph Construction (Neo4j), Knowledge Graphs for AI Agents, LLMs as Operating Systems, LangChain, Multi-Agent Systems
- **Deep Learning Specialization** (5-course) - DeepLearning.AI/Coursera (Jul 2019)
- **Discrete Optimization** - Georgia Institute of Technology/Coursera (Dec 2020)

LANGUAGES

Dutch (native), English (fluent), Spanish (fluent), Catalan (proficient)