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.

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, LangChain, 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 measuring faithfulness, tool usage, and 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 validating dispatch/matching algorithms across 23 countries and 120,000+ monthly couriers, enabling rapid experimentation and parameter tuning
- **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

- **Agentic AI** - DeepLearning.AI (Nov 2025)
- **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)