DUARTE O.CARMO

From Portugal, based in Denmark, available Globally
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Website: duarteocarmo.com
Email: me@duarteocarmo.com
LinkedIn - GitHub

EXPERIENCE

2022   **Self-employed**, Technology Consultant - DK

Helping startups and established companies solving challenging problems with Machine Learning, Data, and Software Engineering
- Driving development of a next-gen insights dashboard for healthcare professionals powered by LLMs at a Swiss pharma client
- Helped the infrastructure team of a multinational Pharmaceutical company migrate its infrastructure to IaC w. AWS CDK
- Lead R&D for a SOTA carbon stock segmentation model based on Satellite Imagery and Deep learning for a UK-based client
- Developed LLM-powered text interface for an AR product configurator in 3 weeks resulting in an even more personalized experience
- Developed the API for a multi-modal search engine (12 NLP/Audio/Video models) to facilitate internal resource search for employees
- Mentee feedback: "*I would not be so excited about learning so many different technologies if it were not for Duarte's example*"
- Used SOTA LLMs to build a system allowing SDRs to create hyper personalized sales emails based on LinkedIn activity with a single click
- Created four end-to-end NLP models to categorize 50M+ people and 20M+ companies for lead prospecting purposes (<5 months)
- Built a large-scale end-to-end data pipeline to analyze text from millions of companies for ESG reporting for a startup based in Belgium
- Created an efficient similarity search engine for over 200K pharmaceutical drugs for a Denmark-based startup
- Lead a team of two through the development of 6 end-to-end ML pipelines with over 1,000 daily active users for San F. based scaleup

2021   **DSB – Danske Statsbaner**, Machine Learning Engineer - DK

Largest train operating company in Scandinavia. DSB has more than 195 Million passengers every year
- Designed foundation for "ATLAS": data management framework allowing automated ingestion of large amounts of data
- Built and deployed application that analyzes incidents in railway network, responding to questions from executive board
- Designed and delivered Machine Learning and AI Strategy for 2024 - approved by C-level management and board

2020   **Boston Consulting Group**, Technology Consultant/Architect – DK

Unit within the Boston Consulting Group focusing on Technology. BCG delivered 8.5 Billion USD revenue in 2019
- Lead the analysis of IT infrastructure of a major scandinavian financial institution uncovering +30m USD in potential savings
- Created 4 mathematical models for migrating critical on-site infrastructure to Public Cloud, using data analysis and Big data tools
- Developed the Cloud adoption Strategy (e.g., AWS, GCP) that paved way for Cloud adoption in a major nordic financial institution

2019-2020   **Jabra – GN Audio**, Digital Consultant – DK

The fastest growing company in the global professional headset market. 900 Million USD revenue in 2019, with 26% growth
- Coordinated Data and Research in development of an AI based software product, lead pilot in USA office (40+ users)
- Received a manager assessment of 5/5: "Continually receives outstanding feedback from subordinates, peers and customers"

2019   **Jabra – GN Audio**, Junior Product Manager – DK
- Responsible for all areas (engineering, sales, R&D, biz dev.) of 2 products, 16.000 and 300.000 units sold accordingly in 6 months
- Assisted top management in strategic analyses for M&A activities. Responsible for quarterly board presentation

2017 – 2018   **Jabra – GN Audio**, Student Analyst in Strategy and Business Development – DK
- Reported to the VP of Strategy and Consumer Business
- Developed 5 internal automation tools used by +30 people. By using them, each executive saved more than 4 hours a month

2017   **Bliss Applications**, Intern – USA

One of the leaders in software development in Portugal. It employs 230 people. It has offices in Portugal, USA, and Brazil
- Worked with 3 clients to transform their ideas into viable technology products. Industries: Health, Entertainment and Social Media

2015 – 2016   **WYGroup**, Resident Entrepreneur – PT

WYGroup is one of the leading players for digital marketing and technology services in Portugal, and has been for the last 16 years
- Co-Founder and creator of eGuru. A start-up that focuses on crowdsourced deliveries and that raised 150K in funding

SKILLS

Software	Python, Rust, Javascript, Golang, C++. OOP, TDD, Low Latency, Distributed systems
Expertise	LLMs, ML/Data Pipelines, Network Analysis, Data Science/Machine Learning/Deep Learning, MLOps, Software Engineering, System Design
Technologies	Git, Linux, Fast API, Django, Node.js, MongoDB, SQL, PostgreSQL, Graph QL, Restful APIS, Async, Docker, CI, AWS, GCP, Azure
Languages	Portuguese – Native; English – Fluent; French – Fluent; Italian - Fluent; Spanish – Very Good User; Chinese – Basic
Teaching	Guest lecturer for the DTU MLOps course and DIS University
Speaking/Writing	3x PyCon/PyData speaker. Appearances in podcasts and blogs. See talks. Writer with avg. 2K/month pageviews.

EDUCATION

2016 – 2018   **Technical University of Denmark, Master in Engineering Management** – DK
- Technology Management, Big Data, Social Graphs, Machine Learning. Final degree average grade of 10/12 (4.0 GPA)
- Thesis: "The uniqueness of technological capabilities: a data-driven network exploration", grade of 12/12 (Paper published)

2015 – 2016   **Beijing Institute of Technology** – CN
- Electrical Engineering studies, including subjects about Digital Logic Circuits, CPU, and Computer Controlled Systems

2011 – 2015   **Instituto Superior Técnico, Bachelor in Engineering Sciences** – PT
- Finished among the top 30% of the class. Grade of 19/20 in the final project of the Computer and Programming class (Best of class)

HOBBIES

- Visited over 82 different countries in the world
- Marathon runner, 8 marathons and 10 half-marathons ran