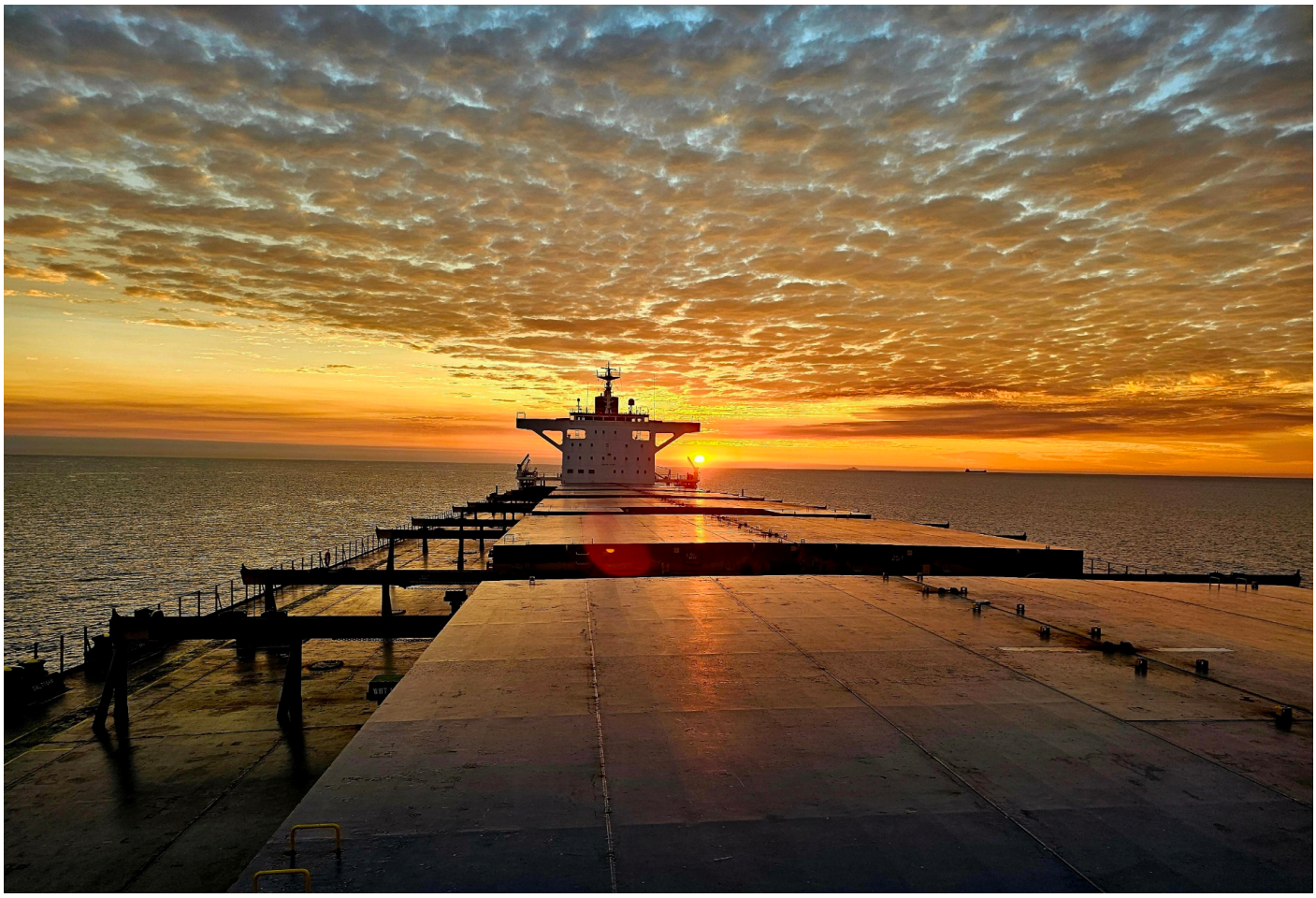


Machine Learning Scientist (m/f/d)

Hamburg, Lübeck

Founded in 1921, OLDENDORFF CARRIERS combines its history as a German shipowner with the network of one of the world's leading drybulk operators. We are currently operating around 800 owned and chartered vessels and transporting approximately 415 million tons of cargo annually. Our global operations focus on spot business, industrial contracts, and offshore transshipment, primarily carrying iron ore, coal, and agricultural products.

Our 4,500 employees from 60 countries include more than 1,000 office-based colleagues across 20 locations and over 3,000 seafarers.

Our customers can expect 100% performance. All the way.

About the Role

Over the past four years, Oldendorff has rebuilt its IT landscape to cutting-edge standards. In October 2024 we launched our Data & Analytics Department and, with it, the D&A Lab, our machine

learning team. As an ML Scientist you will work with our business and D&A teams to turn data into models that drive smarter decisions across our global network and support our goal of carbon neutrality by 2050.

The Data & Analytics Lab builds models that forecast and explain dry bulk shipping markets: freight rates, vessel movements, commodity flows and operational performance. Our core approach is Bayesian probabilistic modelling: structured, interpretable models that quantify their uncertainty and are benchmarked against standard methods. Our commercial teams use these forecasts in day-to-day decisions.

Job Responsibilities

- Build models. Turn commercial questions into well-specified statistical or ML models and take them from research into production.
- Explore new methods. Scan the literature, decide what is worth trying and design rigorous experiments to test it.
- Raise modelling quality. Help define how we validate: backtesting, leakage checks, calibration, model criticism and comparison.
- Review and support. Review code and models for statistical soundness and engineering quality, and help colleagues grow.
- Communicate. Explain model behaviour and uncertainty to commercial teams and stakeholders so they can act on it.

What You Bring Along

- A degree in Physics, Computer Science, Math or a related quantitative field, or equivalent practical experience. Holding a PhD is a strong plus.
- Several years of hands-on experience in applied ML or statistical modelling, including projects you owned end to end.
- Strong practical grounding in Bayesian inference: hierarchical models, MCMC or variational inference, predictive checks, diagnostics and model comparison.
- Expert-level Python and the scientific stack (NumPy, pandas, SciPy, scikit-learn, PyTorch), with solid engineering background: Git, testing, packaging, reproducible experiments.
- Experience taking models into production and keeping them running.
  Clear communication in English, including with non-technical audiences.

Nice to have:

- A probabilistic programming language: PyMC (preferred), NumPyro or Stan.
  Gaussian processes: kernel design, hyperparameter inference and scalable approximations.
- Probabilistic time-series forecasting: state-space and structural models, regime changes, forecast evaluation.
- MLOps tooling (MLflow, Databricks, Azure, Docker, CI/CD).
- Causal inference or decision-making under uncertainty.
- Having peer-reviewed publications in top-tier ML venues or STEM journals is a strong plus.
- Experience mentoring others.
- Background in commodities, shipping, energy or financial markets.

What We Offer

- Our corporate culture is special: relaxed and international, open and traditionally with flat hierarchies.
- Since the very beginning, teamwork and quick decision making have been our success factors. Encouraging our employees to realize their ideas and initiatives is as important to us.

Apply now

Interested?

If you want to know more about who we are: Oldendorff.

Please contact Sophie Meyer in case of questions.

Oldendorff Carriers does not accept paper applications for online postings.