

Andreas Lay

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🔗 layandreas.github.io/personal-blog/

🐦 @layandreas

🌐 Andreas Lay

Senior Data Scientist with strong expertise in ML, Statistics, Time Series Forecasting & Software Engineering

Experience

Senior Data Scientist

REWE Group

📅 Since Aug 2019

📍 Cologne, Germany

- Leading role in architecture & development of business-critical e-commerce order forecast used by operations for optimal staff planning:
 - ▶ Machine learning system to forecast the number of orders for each delivery day & zip code in Rewe's delivery regions for the next 1-20 weeks
 - ▶ Fully serverless, cost-effective implementation leveraging Snowflake / GCP Cloud Run / Managed Airflow / GitLab CI/CD
 - ▶ Avoiding vendor lock-in by taking full advantage of the Python open source ecosystem: dbt, LightGBM, scikit-learn, ibis, duckdb, Streamlit
 - ▶ Including custom model monitoring frontend & alerting to ensure data & model quality
- Architecture & implementation of custom analytics platform in Google Cloud Platform:
 - ▶ Dockerization of authentication & authorization gateway to be used by all analytics teams
 - ▶ Writing of app deployment templates for our GitLab CI/CD pipelines
 - ▶ Providing teams with Terraform modules for e.g. easy alerting to MS Teams & Slack
- Modelling of fraud probability for e-commerce business
- Building of customer segmentation workflow using Apache Beam and Dataflow
- Supporting e-commerce business units in their decisions with high-quality data analysis and modelling
- Support of testing team in designing and evaluating A/B tests on website and app

Credit Risk Modeler

Deutsche Bank AG (formerly Deutsche Postbank AG)

📅 Oct 2015 — Sep 2019

📍 Bonn, Germany

- Modelling of loan default probability and credit loss rates for the retail portfolio of 12m customers used for lending decisions and capital requirements
- Setting up and deployment of automatized model monitoring to ensure model stability and performance
- Supporting data integration efforts with respect to fully integrating Postbank into Deutsche Bank Group

Scholarships

Friedrich Ebert Foundation

Academic merit scholarship granted by the Friedrich Ebert Foundation for the duration of a two year master's programme

Education

MSc in Quantitative Economics

University of Tübingen

📅 Oct 2013 — Sep 2015

📍 Tübingen, Germany

GPA: 1.6*

BSc in International Economics

University of Tübingen

📅 Oct 2009 — May 2013

📍 Tübingen, Germany

GPA: 1.6*

Exchange Student

National Taiwan University

📅 Aug 2011 — Feb 2012

📍 Taipei, Taiwan

Abitur (A-Levels)

Saarlouiser Gymnasium am Stadtgarten

📅 Graduation: May 2009

📍 Saarlouis, Germany

GPA: 1.7*

**On a scale from 1.0 to 4.0 where 1.0 is the best*

Skills

Programming / IT

Languages

Python • R • SAS • SQL • HCL • VBA • Stata • Matlab

Frameworks

scikit-learn • LightGBM • pandas • numpy • plotly • django • fastapi • pytorch • Streamlit

Tooling

Google Cloud Platform • git • Github • Gitlab • docker • terraform • dagster • nginx • dbt • Jira • Confluence

Databases & Streaming

BigQuery • Snowflake • PostgreSQL • Oracle • Teradata • Db2 • Kafka • Beam • GCP Pub/Sub

Languages

German (native speaker) • English (fluent) • Spanish (conversational) • Mandarin Chinese (basic)