Bjørn Jacobi Höyer

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Engineer working across machine learning, optimization, and forecasting, applied to real energy systems: EV charging demand, community-scale energy optimization, and probabilistic wind power forecasting. Comfortable owning a pipeline end to end, from raw data to a decision-ready output.

TECHNICAL SKILLS

Machine Learning	Scikit-learn, XGBoost, CatBoost, NeuralForecast (N-HiTS), Deep Learning, Probabilistic Forecasting, Conformal Prediction, Feature Engineering, Backtesting
Optimization	Mixed-Integer Linear Programming (Gurobi), Techno-Economic Analysis, EV & Storage Modeling
Programming & Data	Python (Pandas, NumPy), SQL, API Data Extraction, Git/GitHub, MATLAB, R

PROFESSIONAL EXPERIENCE

Data Science & Machine Learning Intern, Flower — Jun 2026 – Aug 2026

- Built a backtest measuring the strength and independence of each forecast provider's updates. Showed that an expensive provider, though accurate on RMSE and MAE, added little to the cheaper ensemble, especially during large imbalances. The team decided against the investment, avoiding several thousand euros per month.
- Traced a recurring under-forecasting pattern to mislabeled turbine downtime data, present in both live inference and the training set, and flagged it to the team.
- Diagnosed miscalibrated probabilistic forecasts, tracing the problem partly to power-based reweighting of the training data. Prototyped adaptive conformal quantile prediction and showed it restored the target coverage.

Master Thesis Student, Tibber — Jan 2026 – Jun 2026

- Built an N-HiTS pipeline forecasting shiftable EV charging demand across 14 European bidding areas, trained on 27 million charging sessions.
- Engineered a Monte Carlo engine that split each area's forecast into 20,000+ individual charging sessions for a downstream optimizer, validated against real fleet behavior.

Student Assistant, SYSTRA — Feb 2024 – Jul 2024

- Updated signal and station schematics in CAD, keeping documentation versions consistent across teams.

Customer Support, Private & Business, NemID — Apr 2021 – Dec 2022

- Resolved 11–13 technical inquiries per hour, explaining issues to non-technical customers; promoted to business accounts for consistent high resolution rates.

Ski Instructor, Big White Ski Resort — Dec 2019 – Mar 2020

- Certified CSIA Level 2 instructor teaching skiing to international groups of children aged 4–16.

SELECTED PROJECTS & RESEARCH

Smart EV Management vs. Battery Storage for Energy Communities | Published Research (B.Sc. Thesis)

- Built mixed-integer linear programming (MILP) cost-optimization models in Python and Gurobi comparing Vehicle-to-Building (V2B), unidirectional smart charging (V1G), and stationary battery storage, using real driving data and PV generation.
- Coordinated dispatch cut community electricity costs by 15% on average across the year, up to 10x during summer months.
- Co-authored research published on ResearchGate; presented at an international symposium by a co-author.

EDUCATION

M.Sc. Sustainable Energy Engineering, KTH Royal Institute of Technology (GPA: 3.83/4) — 2024–2026

B.Sc. Design of Sustainable Energy Systems, Technical University of Denmark (GPA: 9.7/12) — 2021–2024

Exchange Semester (Innovation & Wind Power), Australian National University — 2023

LANGUAGES

Danish: Native · English: Fluent · Swedish: Conversational · German: Intermediate