

Austin C. Todd, PhD

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Executive Summary

Visionary Data Science and AI leader with over a decade of experience driving innovation, building and scaling cross-functional teams, and embedding data science into the strategic fabric of tech-driven organizations. I have a proven track record of driving analytical transformation into the core of product development, aligning AI capabilities with business growth, and guiding technical architecture at enterprise scale. I'm passionate about using data as a catalyst for innovation and impact.

Experience

TEAM LEAD DATA SCIENCE, SONNEN – 2021-PRESENT

Leading the Data Science & AI function at one of Europe's most innovative green tech companies. Oversaw the transformation of data science from a niche analytics unit into a central driver of product innovation, customer value, and operational efficiency. I've also served as strategic advisor on AI adoption across the business.

Strategic & Organizational Leadership

- Scaled team from 3 to 10 data scientists, data engineers, analysts, and software developers across 3 teams.
- Drove AI transformation across sonnen, embedding ML into core product development and strategic decision-making.
- Supported innovation by hosting AI learning sessions and advising business units on AI best practices and governance.
- Set team OKRs and capacity plans in alignment with business priorities; managed stakeholder expectations and communicated technical constraints with clarity.

Technical & Product Ownership

- Served as product owner for forecasting and data science initiatives, defining roadmaps and aligning with business goals.
- Made critical technical platform decisions – ensuring a scalable, performant, and reliable MLOps infrastructure.
- Directed infrastructure build-out to support experimentation, deployment, and monitoring of ML pipelines.

Impactful Highlights

- Reduced annual service-related costs by over €1 million through the launch of a Smart Monitoring platform.
- Cut energy trading costs by over 20+% via deployment of next-generation ML forecasting algorithms.
- Developed new ML-based products that expanded sonnen's energy trading portfolio and opened new revenue streams.
- Represented sonnen in external speaking engagements in the AI and data science community.

DATA SCIENTIST, NATIONAL RENEWABLE ENERGY LABORATORY – 2019-2021

Lead data science and analytics projects and delivered research and enterprise-grade digital solutions across several pillars of NREL's strategic mission to drive innovation in renewable energy and to reduce global carbon emissions.

- Led multidisciplinary analytics team for evaluation wind plant performance.
- Developed deep learning models for urban mobility optimization and Smart City applications
- Deployed AI models for anomaly detection and optimization of supercomputer cooling resources
- Contributed to multiple high-impact publications on wind energy and AI for infrastructure operations

LEAD DATA SCIENTIST, METEOGROUP – 2017-2018

Built and delivered machine learning products for industry clients by leveraging internal weather data and forecasts into bespoke customer solutions. Data science lead for international delivery management team.

- Built a real-time ML system predict utility network outages, securing over €200K+ in client investments.
- Designed and implemented Proof-of-Concept analytics for new B2B customer acquisition in IoT

DATA SCIENTIST/ENGINEER, TELEKOM INNOVATION LABORATORIES – 2015-2017

Led industry analytics projects in the automotive, energy, telecommunications, and IoT domains.

- Led Proof-of-Concepts for clients in energy domain – converting insights into contracts worth €100k.
- Built simulation tools for automotive sensor data and oversaw 6 student-led research projects

Education

Florida State University, Tallahassee, FL – **PhD, Physical Oceanography**, 2013

Florida State University, Tallahassee, FL – **B.S., Meteorology, B.S. Mathematics** (*cum laude*), 2007

Technical Skills

LANGUAGES & FRAMEWORKS

Python, SQL, Scikit-learn, pytorch, Tensorflow, spark

DATA VISUALIZATION

Tableau, Matplotlib, Plotly, Dash

CLOUD COMPUTING & IOT PLATFORMS

AWS (S3, EC2, Sagemaker, Athena), Databricks, Kafka

Selected Publications

- **Todd, A.C.**, M. Optis, N. Bodini, M.J. Fields, J. Perr-Sauer, J.C.Y. Lee, E. Simley, R. Hammond (2022): *An independent analysis of bias sources and variability in wind plant pre-construction energy yield estimate methods*. Wind Energy, 25 (10), p. 1775-1790. <https://doi.org/10.1002/we.2768>
- **Todd, A.C.**, A. Purkayastha, H. Egan, D. Sickinger, M. Eash, S. Serebryakov, J. Hanson, M. Slaby, N. Wunder, N. Guba, K. Munch, T. Cader, and C. Phillips (2021): *Artificial Intelligence for Data Center Operations (AI Ops)*. Golden, CO: National Renewable Energy Laboratory. NREL/TP-2C00-79712. <https://www.nrel.gov/docs/fy21osti/79712.pdf>
- Fields, M. J., M. Optis, J. Perr-Sauer, **A.C. Todd**, J.C.Y. Lee, J. Meissner, E. Simley, N. Bodini, L. Williams, S. Sheng, and R. Hammond (2021): *Wind Plant Performance Prediction Benchmark Phase 1 Technical Report*. Golden, CO: National Renewable Energy Laboratory. NREL/TP-5000-78715. <https://www.osti.gov/biblio/1826665/>
- Perr-Sauer, J., M. Optis, J.M. Fields, N. Bodini, J.C.Y. Lee, **A.C. Todd**, E. Simley, R. Hammond, C. Phillips, M. Lunacek, T. Kemper, L. Williams, A. Craig, N. Argawal, S. Sheng, J. Meissner (2021): *OpenOA: An open-source codebase for operational analysis of wind farms*. Journal of Open Source Software, 6(58), 2171, <https://doi.org/10.21105/joss.02171>
- Berres, A., T.J. LaClair, C. Wang, H. Xu, S. Ravulaparthi, **A.C. Todd**, S. Tennille, and J. Sanyal (2020): *Multiscale and Multivariate Transportation System Visualization for Shopping District Traffic and Regional Traffic*. Transportation Research Record, 1–15. <https://doi.org/10.1177/0361198120970526>

Personal Details

LANGUAGES

English (native)

German (B2)

Turkish (B1)

French (basic conversational)

HOBBIES

Cycling, climbing, running, triathlons, travel, guitar