Alec P. Wick

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EDUCATION

University of Nebraska Omaha — Omaha, NE
Master of Science in Data Science — May 2024
Concentration: Information Technology — GPA: 3.91

Doane University — Crete, NE
Bachelor of Science in Mathematics and Data Analytics — May 2021
Minor: Software Development — GPA: 3.62

EXPERIENCE

HDR Inc. — Omaha, NE
Data Scientist — May 2024 - Present

- Lead several strategic enterprise objectives, including an LLM-based marketing tool
    - Effective use of dynamic prompt engineering utilizing data from a cloud platform
    - Presented to the executive leadership team (CEO, CFO, CTO, COO, CSO)
    - Mentioned at the company's annual meeting and highlighted in the strategic plan
    - 5,000+ uses within 6 months with a user base of 400 marketing staff
- Deployed and introduced financial predictive models for the Financial Leadership Team
    - XGBoost, LightGBM, FNN, Prophet, SARIMAX, Exponential Smoothing

Business Intelligence Analyst — July 2021 - May2024

- Partnered with finance department directors to provide effective reporting applications
- Deployed a regression-based model for procurement requisition and purchase order completion
- Experience managing and designing data architecture patterns for scalable enterprise use

CATCH Intelligence, Omaha, NE — May 2019 - June 2021
Data Science Intern

- Developed a robust tree-based classification model with the capability to accurately predict fraudulent unemployment claims for clients during the COVID pandemic

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RESEARCH

- Evaluating Trust in AI
    - Research examines the complex factors that determine whether individuals trust AI to make decisions in sectors such as healthcare, law enforcement, and employment.
    - The study utilizes machine learning to identify and rank variables such as age, income, and political ideology that influence trust in AI
    - Trained models could predict an individual's trust level with 73.3% to 86.7% accuracy, depending on the specific application domain

- Oregon Healthcare Evaluation
    - Developed and refined logistic regression models in R to predict emergency department utilization for a population of 30,000+ participants
    - Identified and processed model covariates, including chronic illnesses (diabetes, asthma) and self-assessed pain levels as independent variables to model healthcare utilization
    - The fitted model predicted whether a patient would visit the emergency department with 64.4% accuracy based on their pre-existing health conditions.
- Predicting Flight Delay
    - Extracted and cleaned 600,000+ flights using the Anyflight and dplyr package
    - Developed a predictive framework using Logistic Regression for binary classification and Multiple Regression for continuous variable forecasting
    - The Logistic Regression model achieved a 83.33% accuracy rate, correctly classifying over 100,000 flights within the validation set.

SKILLS

- Extensive knowledge in LLMs, including transformer architecture, training methodologies, deployment, inference, reasoning mechanisms, and evaluation monitoring
- Leverage Python packages such as Pytorch, Tensorflow, Keras, and Scikit-learn to train, fine-tune, and evaluate models
- Proficiently conduct data analysis and statistical modeling with expertise in Python and R
- Experience utilizing LaTeX formatting in Python and RMarkdown to present research results
- Develop high-quality data visualizations to effectively tell a story through data using packages such as Matplotlib, Seaborn, Plotly, Plotnine, ggplot2, and leaflet
- Design interactive reports and dashboards using Power BI, Streamlit, RShiny, RMarkdown, Oracle BI, Tableau, ArcGIS Pro, and SAP Predictive Factory

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HONORS & AWARDS

- 2 x HDR Corporate Pathfinder Award Winner 2024 & 2025
- Jim Johnson Doane Mathematics Award 2019

CERTIFICATIONS

- Snowflake SnowPro Core Certification 2025
- Doane Hansen Leadership Certificate 2021

PRESENTATIONS

- Corporate Technology Conference - Levering AI within Marketing 2025
- Finance Leadership - Effective use of Data & AI
- Finance & Accounting Dinner - Extracting Insight from Data
- Water Business Group Technology Update - AI in Marketing
- Technology Special Topics - Utilizing AI within the Enterprise 2024
- Master’s Project - Predicting Flight Delay