

Adam Erler, Data Scientist

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Summary

Data scientist with expertise in data analysis, predictive modeling, and machine learning, with a strong background in optimizing business processes through automation and data-driven decision-making. Adept at working with large datasets, building analytical models, and delivering insights to support strategic pricing and revenue optimization.

Experience

GLAN

Remote

Data Scientist

04/23 - Present

- Collaborated with the research team to develop a machine learning tool that identifies connections between companies and human rights violations, slashing research time by 99%
- Developed a full-stack web application using Flask, integrating front-end and back-end components to deliver seamless user experience
- Implemented API integrations with large language models (LLMs) to enhance data extrapolation and uncover deeper business insights
- Developed a cross-document referencing tool using TF-IDF NLP techniques to improve information retrieval and document analysis efficiency
- Created a GIS mapping of incidents for visualization

Education Strategy Consulting

Remote

Data Analyst

06/2023 -Present

- Designed and managed a PostgreSQL database to store and process multi-state education data, optimizing query performance for advanced analytics and reporting
- Developed an automated API interface for programmatic Google searches, achieving an 80% reduction in workflow time for related tasks
- Identified inefficiencies in the data analysis process and redesigned workflows, significantly enhancing efficiency and consistency across multiple data sources
- Managed and streamlined project versioning by regularly updating and maintaining codebase using Git, ensuring seamless collaboration and project continuity
- Integrated state-level education data with NCES GIS datasets to create geospatial visualizations, enabling deeper insights into regional education trends
- Created reports and managed data queries using XML-based SQL abstraction tools.

Concept Schools

Chicago, IL

Teacher, Data Analyst

08/2019 - 06/2023

- Taught a diverse curriculum including Dual Credit Pre-calculus, AP Physics, Computer Science Principles, Web Design, and Unity-Based Game Design
- Authored two grants, securing over \$100,000 in funding for Project Lead The Way (PLTW) and Game Design classes
- Implemented data-driven strategies that improved student performance on state tests by at least 5%.
- Provided daily mentorship to new staff, facilitating the achievement of their professional goals
- Developed a comprehensive four-year computer science program offering multiple pathways for students to pursue careers in technology and science, resulting in certifications in Unity 3D, Google, and PLTW
- Built internal data dashboards to assist teachers in data exploration activities

Hammond Academy of Science and Technology

Hammond, IN

Grade Chair, Teacher

06/2014 - 07/2019

- Taught: Algebra 1, Geometry, Web Desing, and Computer Science Principles

- Managed day to day activities and operations for 9th and 10th grade teachers
- Wrote grants to fund the new computer science department valued over \$30,000
- Collaborated with the 10th grade English team to create an ISTEP+ support program. Results showed student growth ranking in the 90th percentile for participation.
- Created teacher compensation committee improving average salary by over \$26,000

Sonam Technologies

Data Engineer

Crown Point, IN

05/2015 - 07/2018

- Designed and implemented a cloud-based data warehouse using SQL to collect, store, and manage both real-time and historical product data, improving data accessibility and analysis.
- Built and deployed regression models using customer data to predict playground degradation patterns, optimizing maintenance strategies and extending product lifespan
- Developed and automated ETL pipelines using Apache Airflow, optimizing data ingestion, transformation, and integration from various sources

Outreach

QuarkNet

Lead Teacher

Hammond, IN

06/2014 - 08/2023

- Orchestrated international workshops that connected high schools worldwide with live data from the Large Hadron Collider, fostering global educational collaborations
- Collaborated with Fermilab's Silicon Detector Laboratory to identify and address production errors in readout chips for the Forward Pixel Detector at CMS
- Honored in the NWI Society of Innovators in 2017 for supporting the community

Education

Bellevue University

Master of Science, Data Science

Bellevue, NE

Purdue University

Master of Science, Mathematics

Hammond, IN

Southern Illinois University

Bachelors of Science, Mathematics

Carbondale, IL

Skills & Interests

Programming Languages and Tools: Python, JavaScript, R, MATLAB, SQL, HTML/CSS, Pandas, Scikit-Learn, Hadoop, Spark/PySpark

Data Visualization Tools: Excel, Google Sheets, Seaborn, Matplotlib, Power BI, LaTeX

Human Skills: Effective Communication, Problem-Solving, Team Collaboration, Adaptability, Critical Thinking, Attention to Detail, Project Management, Curiosity and Learning, Ethical Judgment and Integrity, Lifelong Learner