Dustin Wicker

(919) 353-4199 | dustinlwicker@gmail.com
Github: https://github.com/dustinwicker
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SUMMARY

Experienced team leader and data scientist with creative problem-solving mindset and strong interpersonal skills, with a proven track record of implementing machine learning models and advanced data mining techniques to turn technically complex challenges into viable solutions. Detail-oriented, innovative critical thinker dedicated to making a difference through data-driven results. Key accomplishments and abilities include the following:

- Building custom production-level analytics deliverables in workflow process
- Communicating complex concepts to technical and non-technical audiences
- Working collaboratively with diverse sets of professionals to achieve optimal results

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SKILLS

- *Technical:* Python, SQL, PySpark, Tableau, Git, Amazon Web Services, R, Hadoop Ecosystem, Dataiku DSS

EXPERIENCE

Centers for Medicare & Medicaid Services (CMS), Denver, CO (Remote); Contract
Senior Data Analyst   March 2023 – Present

- Leading a team of diverse data professionals in analyzing how initiating and non-initiating parties select IDREs during the dispute process, providing CMS with deeper insights into the selection process, helping identify and address inefficiencies, and increasing overall understanding of decision-making patterns
- Implementing Python-based machine-learning algorithms to predict dispute closure durations using a dataset of over 1.6M disputes and 4.3M line-items, and conducting comprehensive analysis to dissect the mechanics driving both prolonged and accelerated closures which improves strategic decision-making
- Developing script that automates the entire process of creating the Federal Independent Dispute Resolution Public Use File (IDR PUF) and Supplemental Tables using SOQL and Python, ensuring data integrity and providing critical transparency in the implementation of the Federal IDR portal
- Leveraging SOQL and Python to conduct complex statistical analyses and create compelling data visualizations that answer ad hoc requests from various CMS teams which provides valuable analytical insights, optimizes data ingestion processes, and informs process improvements

U.S. Department of State (Bureau of Population, Refugees, and Migration) - Refugee Processing Center, Denver, CO (Remote); Contract
Senior Data Analyst   June 2021 – March 2023

- Built machine learning models and applied natural language processing techniques in Python to understand why 15K referred cases are being deferred for prolonged periods of time and used the acquired information to improve case processing procedures
- Performed in-depth statistical analyses and analytical techniques on 1M+ rows of data in Python and T-SQL to identify top action items causing delays in refugee processing operations and visualized the results to upper-level officials through Tableau dashboards
- Built and redesigned 20+ interactive Tableau dashboards that provided pertinent, time-sensitive information in an easily digestible format to top-level government officials
- Implemented T-SQL code into 21 Common Data Model tables that allowed for smooth transition of data from initial ingestion into production, solved crucial issues for processing centers around the word, and improved data integrity

General Dynamics Information Technology, Edgewater, CO (Remote); Contract

Senior Metrics and Data Analytics Analyst   November 2020 - June 2021
- Enhanced and productionalized eight statistical healthcare models in a time-sensitive environment using PySpark, HiveQL (HQL), and Python to support the Centers for Medicare & Medicaid Services (CMS) Center for Program Integrity in its effort to strategically combat fraud, waste, and abuse across Medicare, Managed Care, and Medicaid programs
- Built data process workflow from 100M+ rows of CMS data for each model using HQL which ensured the proper population of providers, claims, and payment information was utilized in the data analysis and reporting process to identify fraudulent medical providers and practices
- Extracted qualitative and quantitative relationships by performing data manipulation and statistical analysis methods which resulted in robust data visualizations, reports, and presentations used by CMS and its partner organizations to further investigate identified cases of fraudulent activity

Thinkful, Denver, CO (Remote)
Data Science Mentor   November 2018 – August 2022
- Mentoring data science students one-on-one through six-month online academy specializing in Python, PySpark, and SQL to develop their analytical skills and become proficient in the full data science stack
- Guiding mentees through content including programming fundamentals, statistical and regression analysis, machine learning, and big data using instructional sessions, code review, and pair programming
- Providing students with career coaching and industry best practices to assist their transition into the advanced analytics and data science field

Cognizant, Parsippany-Troy Hills, NJ
Business Analytics and Insights Senior Associate   August 2017 - July 2019
- Worked with a Fortune 500 rental car company to develop three production-level machine learning models in Python and synthesized the results to predict rental patterns of 4M brand switching customers resulting in a win-back email marketing campaign
- Developed machine learning models in PySpark using real-time car telemetry data to predict car maintenance failures before they occurred resulting in optimized car usage across the fleet and overall reduction in maintenance costs per vehicle
- Utilized a variety of text mining techniques in Python on 45K post-rental survey responses to decipher patterns among positive and negative customer experiences
- Analyzed 25M customers and their 82M rentals through statistical techniques in Python to identify differences between churned and non-churned customers
- Segmented those 25M customers into five unique clusters using the K-means algorithm in Python to enable the client to send tailored emails and promotions
- Created bundles of the most popular products purchased together by performing association analysis in R on 35M ancillary product transactions resulting in immediate uplift in online sales

Graduate School Practicum
Northrop Grumman   September 2016 – May 2017
- Investigated specific questions concerning fraud, waste, and abuse such as: DRG upcoding, atypical care patterns, and 30-day readmission rates
- Implemented techniques including data mining, association analysis, regression analysis, and network analysis using R, SQL, and SAS
- Analyzed over 12GB of Centers for Medicare and Medicaid Services (CMS) data containing 2.7 million Medicare claims with approximately 3,400 fields per claim

PawBoost, Raleigh, NC
Data Analyst   December 2016 – August 2017
- Analyzed data sets in Python containing information on over 100,000 lost pets and identified notable patterns, trends, and deficiencies to boost business performance
- Created visualizations in Tableau to communicate meaningful findings to business owners

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EDUCATION

Master of Science in Analytics   May 2017
Institute for Advanced Analytics, North Carolina State University, Raleigh, NC

Bachelor of Science in Civil Engineering, *magna cum laude*   December 2013
North Carolina State University, Raleigh, NC
Honors: Dean's List seven times, National Collegiate Honor Society

Università Cattolica del Sacro Cuore   January 2013 – May 2013
Milan, Italy

VOLUNTEER EXPERIENCE

FightPandemics
Web Scraper   May 2020 – June 2020
- Scraping all pertinent data from COVID-19 related websites using Python
- Coordinating with data managers to ensure correct format and destination of the data