

# JORDAN WINEMILLER

## LEAD DATA SCIENTIST



✉ [jordanwinemiller@gmail.com](mailto:jordanwinemiller@gmail.com)  
☎ 913-620-7648  
📍 Kansas City, MO 64108  
in [LinkedIn](#)  
📄 [GitHub](#)  
🏠 [Portfolio Website](#)

### 👤 PROFESSIONAL SUMMARY

Experienced Data science professional with 12+ years of hands-on experience in advanced analytics, software engineering, statistics, machine learning and generative artificial intelligence. Proficient in various technologies including SQL, NoSQL, C, C#, Go, Python, PySpark, R, and Rust. Proficient in software development and machine learning lifecycle methodologies, providing automated, scalable enterprise product solutions.

Holds a M.S. in Applied Statistics and Analytics from the University of Kansas Medical Center, a Biostatistics Graduate Certificate from the University of Kansas Medical Center, a B.S. in Mathematics and Statistics from the University of Missouri-Kansas City, and has continued regularly attending data science and statistics seminars.

Over 8+ years leading teams as a mentor to analysts, engineers, and scientists. Collaborating with stakeholders functioning in a variety of data driven fields including data science, architecture, warehousing, and governance.

### 📁 PROFESSIONAL EXPERIENCE

May 2023  
from  
Current

#### Lead Data Scientist

📍 Washington, DC

*CareFirst BlueCross BlueShield - FEPOC - Machine Learning Team for Health Insurance Projects*

- Productionized the company tailored generative AI chatbot with AWS hosted large language model and retrieval-augmented generation
- Built automation for AWS Lambda for Compass generative AI product to move towards continuous integration and deployment
- Built the backend service to facilitate the generative AI chatbot orchestration
- Created the custom AWS SageMaker service to automate the machine learning models in cloud environment
- Migrated on-premises machine learning models to Amazon Web Services with continuous integration and delivery
- Built new claim adjudication machine learning model to identify over payments for additional professional services rendered during surgery claims

#### Research

- Developed the proof-of-concept for company-specific generative AI product using large language models
- Developed the feedback data design for testing large language model accuracy and usage statistics
- Designed Human-in-the-Loop reinforcement learning testing for large language models
- Designed a structured prompt garden for large language model based on the user's role
- Examined procedures to expand the technology stack to include agentic models
- Designed automated evaluation framework for models metrics
- Integrated machine learning frameworks into the data science toolset in local and cloud environments
- Implemented security and standards around code reviews and source control

October 2022  
from  
March 2020

### Key Responsibilities

- Presented continuous communications to the Director's office for the machine learning team for model and engineering improvements
- Led the implementation for machine learning and data science best practices
- Designed the coding standards and guides for the machine learning and generative AI teams
- Improved existing machine learning models to meet updated requirements from the business
- Built reusable patterns, services, and utilities to expedite development within the machine learning team
- Designed deployment pipelines for continuous integration and deployment for machine learning team
- Collaborated with architecture review boards to enhance data science toolsets and machine learning frameworks

### Senior Data Scientist

📍 Kansas City, MO

*AdPredictive - Intelligent Advertising for Marketing Solutions*

#### Projects

- Designed closed-loop machine learning intelligence that empowered business leaders to their strategic goals and to make data-driven decisions
- Architected an automated algorithmic audience platform product for mass media television clients with post-campaign analysis; enabling clients to continuously direct campaigns while reaching an average of 7.5M consumers
- Architected custom in-house solutions to create a machine learning lifecycle platform and analytics factory to control for experiments and mitigate volatility using AWS Lambda, AWS Step Functions, AWS EMR, AWS EC2

#### Research

- Investigated concepts for expanding company offerings for direct-to-consumer, and international product offers
- Explored Elasticsearch NoSQL Solution to increase graph searching algorithms capabilities
- Designed smart attributes based on vendor data sources for individual and household consumers
- Designed market loyalty algorithms to help clients with retention of consumers
- Designed consumer experience indices for lookalike audience algorithms
- Designed ODS/Transactional (Operational Data Store) schemas to support machine learning processes and client automated campaigns using AWS RDS (PostgreSQL)
- Designed POC for Snowflake integration for first-party clients
- Designed Apache Airflow ETL jobs using AWS EMR for TV viewing, demographic, geolocation and client digital advertisement impressions

### Key Responsibilities

- Provided guidance to members and participated in cross-departmental projects establishing the company as a leader in data science
- Planned and executed department strategy for incorporating intelligence into product offerings
- Managed department communications to business partners, clients, and executive leadership
- Created and maintained standards for data and development guidelines
- Introduced and standardized first and third-party data dictionaries for internal and client use
- Created and converted ETL processes to store and warehouse new data providers
- Created Python utility packages for AWS and MLflow tracking server for data science experiments
- Created the ETL processes to store vendor data using AWS EMR, AWS S3, AWS Redshift using compression over Parquet and delimited file formats

March 2020  
from  
June 2019

### Senior Data Scientist

📍 Kansas City, MO

*AutoAlert - Data Science Team for Automotive Marketing Solution*

#### Projects

- Architected customer vehicle recommendation system; allowing the intelligent marketing team to produce individualized offers driving a 7% increase in customer engagement
- Architected producer processes to push intelligent from data science models back into transactional systems
- Revamped CI/CD workflows into a comprehensive Machine Learning Lifecycle Workflow Platform

**Research**

- Designed recommendation algorithm using a recurrent neural network for determine customer preferences
- Designed market intensity algorithms to determine vehicle trim level preferences by region
- Designed geolocation algorithms to target customers based on market comparisons
- Designed API layer using Golang to securely expose data endpoints to internal teams
- Designed data models for the development of the Customer Experience Management System
- Investigated time series analysis models (ARIMA, TVAR, and DLMs) to apply incentives for customers on an individual basis
- Explored survival models to apply survival life cycle curves for OEM products
- Investigated plugin to pull from the transaction log and move to workflow process using logical replication slot in PostgreSQL and RabbitMQ

**Key Responsibilities**

- Led department project planning, design, and implementation
- Mentored data analysts, data engineers, and data scientists
- Collaborated with DevOps to create EDA servers for data science team
- Built consumer and producer processes to ETL data throughout company wide data stores
- Built and optimized the data sources for the business analysts at AutoAlert including providing data marts for client reporting

June 2019  
from  
March 2018

**Data Scientist**

📍 Kansas City, MO

*AutoAlert - Data Science Team for Automotive Marketing Solution*

**Projects**

- Architected buying cycle system based on customer web interactions
- Architected customer household profile system based on previous sales and service records
- Implemented Amazon EMR into the machine learning pipeline with other data scientists

**Research**

- Designed the process of household clustering from using MapReduce to using graph processing
- Designed point process algorithm to determine when potential customers would likely to enter a buying cycle
- Designed and implemented a CI/CD workflow for machine learning
- Designed Vagrant EDA box with Jupyter and RStudio for the data science team

**Key Responsibilities**

- Implemented Bash shell scripts to decrease prediction times for models written in python
- Integrated with three (3) external companies to populate data warehouse with external data used in algorithms
- Ingested transactional data from seven (7) ODS systems to enterprise data warehouse using custom in-house solution managed by Apache Airflow

March 2018  
from  
April 2017

**Senior Data Developer**

📍 Kansas City, MO

*AutoAlert - Intelligent Marketing Team for Automotive Marketing Solution*

**Projects**

- Offered approaches to simplify data integration processes and standardize data feeds across systems to reducing data latency; enabling customizable campaigns for clients with large improvements in campaign reliability and delivery time
- Optimized the campaign platform workflow engine; increasing the scalability from 300 clients to 1500+ clients
- Automated data migration scripts for source control of DDL using Flyway
- Created ROI reporting dashboards for intelligent marketing campaigns
- Created composite-key based data architecture for custom content management service

**Research**

- Collaborated in developing state machine workflow system with .NET, Consul, and Orleans
- Designed data model for content management system for custom templated campaigns
- Designed database automation for migrating between environments
- Designed WCF workflow system to replace service layer in .NET

**Key Responsibilities**

- Implemented DDL triggers to track database changes prior to deployments
- Implemented methods to increase performance in pre-existing ETL processes

<p>April 2017 from November 2015</p>	<ul style="list-style-type: none"> <li>• Implemented internal concurrent queues to stop race conditions in service layer in .NET</li> <li>• Managed Microsoft SQL Server, PostgreSQL, RabbitMQ, and NoSQL instances for SAAS platforms</li> </ul> <p><b>Senior Business Intelligence Engineer</b> <span>📍 Mission, KS</span>  <i>Cox Automotive - Business Intelligence Team for Automotive CRM Solution</i></p> <p><b>Projects</b></p> <ul style="list-style-type: none"> <li>• Architected the reporting and analytics platform for CRM external clients</li> <li>• Developed the Data Gateway solution including databases, web API layer, and the Azure management proxy</li> <li>• Developed key performance indicators to illustration individual rankings to clients against similarity, geographic, and global populations leading to client revenue</li> </ul> <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Vetted Tableau and Spotfire as an enterprise solution for internal reporting</li> <li>• Designed data model to support hierarchy segmentation for CRM including analytics and reporting by clients, and client groups</li> <li>• Designed infrastructure for business intelligence team in production, and two (2) pre-production environments</li> </ul> <p><b>Key Responsibilities</b></p> <ul style="list-style-type: none"> <li>• Worked across multiple functional departments translating business problems into solvable cases with emphasis on anticipating future state product requirements</li> <li>• Led development teams in building customer retention reporting platform using WCF, ASP.NET Web API, and React JS</li> <li>• Collaborated with Development Operations in transitioning applications to continuous integration and deployment standards</li> </ul>
<p>November 2015 from March 2015</p>	<p><b>Software Engineer</b> <span>📍 Mission, KS</span>  <i>Cox Automotive - Internal Solution Team for Automotive CRM Solution</i></p> <ul style="list-style-type: none"> <li>• Designed documentation for integrations for Astera ETL software and Mulesoft technologies</li> <li>• Composed the client-facing documentation for Data Gateway API solution</li> <li>• Embedded the proof of concept reporting and analytics platform into the CRM for external clients</li> <li>• Tested four (4) proof of concepts; two (2) are currently used as enterprise solutions</li> <li>• Collaborated with data services team in planning the migration of historical data from transactional database servers</li> </ul>
<p>March 2015 from March 2014</p>	<p><b>Systems Analyst</b> <span>📍 Kansas City, MO</span>  <i>Kansas City Life Insurance Company - Illustration Team for Actuarial Department</i></p> <ul style="list-style-type: none"> <li>• Continuously updated product guides, data dashboards, state approvals, interest rates for all interest sensitive products, and fund expenses and names for variable universal life product</li> <li>• Trained new employees in product calculations, regulatory guidelines, application development, and assisting agents</li> <li>• Designed universal life product calculations in Microsoft Excel to be used for test-driven development</li> <li>• Wrote manual calculations for term life insurance products, universal life insurance products, and the indexed universal life product</li> <li>• Designed tests and corrected new engine calculations for universal life products</li> <li>• Maintained and deployed three (3) websites, and one (1) stand-alone software solution with continuous updates and applications</li> <li>• Assisted Data Warehouse Engineer in transferring and administrating data controls for mainframe systems (Cobol), local servers, and cloud servers</li> </ul>
<p>May 2013 from January 2014</p>	<p><b>Mechanical Engineering Co-Op</b> <span>📍 Kansas City, MO</span>  <i>SPX Cooling Technologies - Engineering Company for Evaporative Cooling</i></p> <ul style="list-style-type: none"> <li>• Planned and coordinated the testing of CTI Tower for 2013 certification for the NC series of towers</li> <li>• Led two (2) projects; in the capacity of developing test plans , implementing testing procedures and analyzing test data</li> <li>• Developed database schemas for tracking the calibration of rate flow instruments</li> </ul>

- Developed standards for a variety of test equipment to measure air psychometric characteristics, air flow rates and velocities, water flow rates, and sound/vibration levels
- Created and/or updated best practice documents, dealing with instrument calibration and testing procedures

## EDUCATION



**Master of Science**  
**Applied Statistics and Analytics**  
*University of Kansas School of Medicine*  
*Graduated Mu Sigma Rho*  
*National Honorary Society for Statistics*

📍 Kansas City, KS



**Graduate Certificate**  
**Biostatistics**  
*University of Kansas School of Medicine*  
*Advanced coursework in Bayesian and Statistical Inference*

📍 Kansas City, KS



**Bachelor of Science**  
**Mathematics and Statistics**  
*University of Missouri - Kansas City*

📍 Kansas City, MO

## PROFESSIONAL DEVELOPMENT

### **American Statistical Association**

Joint Statistical Meetings, 2019 - 2024

Weighted Methods in Surveys, 2020

Bayesian Thinking: Fundamentals, Regression, and Multilevel Modeling, 2020

### **15<sup>th</sup> Annual Innovations in Design, Analysis, and Dissemination**

Frontiers in Biostatistics and Data Science, 2020 - 2023

### **Kansas - Western Missouri Chapter**

Bayesian Spatially Varying Coefficient Models with Functional Predictors, 2023

Charting Your Course for Leadership Success, 2022

Introduction to Structural Equation Modeling, 2021

Introduction to R for Data Science, 2019

### **Joint Statistical Meetings Short Courses**

Analyzing Restricted Mean Survival Time

Bayesian Time Series Analysis and Forecasting

SAS Bayesian Generalized Linear Mixed Models

SAS Causal Effect Estimation with Observation Data

SAS Practical Causal Mediation Analysis

SAS Geospatial Analysis

### **AWS Machine Learning**

Math for Machine Learning

Linear and Logistic Regression

The Elements of Data Science

### **Kaggle Learn**

Advanced SQL

Computer Vision

Deep Learning

Feature Engineering

Geospatial Analysis

Machine Learning

Reinforcement Learning

Time Series

## AWARDS AND ACHIEVEMENTS

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### Academic

Mu Sigma Rho - National Honorary Society for Statistics, *2019*  
American Statistical Association, *2018*  
JCERT Scholarship, *2016 - 2019*  
ACCC Merit Scholarship, *2007*  
ACCC Dean's Scholarship, *2006*

### Leadership

CAP Achievement Award, *2009*  
Four (4) CAP Commander's Accommodation, *Last In 2008*  
CAP Cadet Officer of the Year Award for Kansas, *2005*  
AFA Cadet of the Year Award, *2005*  
General Ira C. Eaker Award, *2004*  
National Cadet Officer School, *2004*  
Eagle Scout Award, *2001*

### Athletic

National DI Championship Series Round of 8 (2015)  
National DIII Championship Series Round of 8 (2012)  
Western DIII Rugby Championship 3rd place (2012)  
Western DIII Rugby Championship 4th place (2011)  
Heart of America DIII Rugby Champions (2011)

## PROFESSIONAL AFFILIATIONS

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### Mu Sigma Rho

National Statistical Honor Society, *2019 - Present*

### American Statistical Association

Member, *2018 - Present*

### USA Rugby

World Rugby Level 1 Referee, *2020 - Present*  
USA Rugby L100 Coach, *2020 - Present*  
Senior Club Member, *2010 - Present*

## COMMUNITY SERVICE

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### Kansas City Blues RFC

Executive Board Member, *2019 - Present*  
Treasurer, *2018 - 2024*  
Club Member, *2010 - 2025*

### Civil Air Patrol

Cadet Program Management Officer, *2005 - 2010*  
Emergency Services Training Officer, *2006 - 2009*  
Cadet, *2000 - 2006*

### Boy Scouts of America

Eagle Scout, *1997 - 2003*

## COMPETENCIES

### Analytical

- Bayesian Inference
- Categorical and Survival Analysis
- Data Analysis
- Data Modeling
- Deep Learning
- Experimental Design
- Linear Models
- Machine Learning
- Mathematical Statistics
- Multivariate Statistical Analysis
- Nonparametric Methods
- Statistical Computing
- Statistical Inference
- Visualization Analysis and Design

### Business

- Ability to Plan and Organize
- Business Relations
- Communication
- Conflict Management
- Critical Thinking
- Decision Making
- Leadership
- Mentoring
- Problem Solving
- Product Development
- Program/Project Management
- Stakeholder Engagement
- Strategic Planning
- Technical Notion

### Software

- Agile Software Development
- Algorithmic Efficiency
- API Development
- Application Monitoring
- Architecture Patterns
- Cyclomatic Complexity
- Data Modeling and Governance
- Deployment Pipelines
- Event-Driven Programming
- Functional/Technical Documentation
- Master Data Management
- Scrum Methodologies
- Software Development Lifecycle
- Test Driven Development

## TECHNOLOGY SUMMARY

### Programming Languages



**Data Analysis:** *SQL, Pandas, R, Bash, Vim*  
**Statistical:** *Python, MATLAB, R, SAS*  
**Machine Learning:** *Supervised, Unsupervised, Reinforcement Learning, NLP, Computer Vision, UMAP, Foundation Models*  
**ML Libraries:** *PyTorch, Scikit-Learn, Spacy, TensorFlow, OpenCV, RStan, PyMC, Spark MLlib, LangChain, LangGraph, CrewAI*  
**Object Oriented:** *Python, C++, C#, Golang, Java, Rust, WCF*  
**ETL Frameworks:** *Spark, Scala, Python, PySpark*  
**Front-End:** *Angular, Hugo, React JS, SolidJS*

### Data Technologies



**AWS Data Services:** *Aurora, Athena, Glue, RDS, Redshift, EMR*  
**Database:** *Microsoft SQL Server, PostgreSQL, Oracle*  
**Formats:** *CSV, JSON, GZIP, Parquet, Snappy*  
**SQL Server:** *SSRS, SSAS, SSMS, SQL Agent*  
**Graph:** *GraphDB, Neo4j, Neptune*  
**NoSQL:** *Elasticsearch, MongoDB, Cassandra*  
**Cache and Streaming:** *MSQM, RabbitMQ, Redis, Kafka*

### Applications



**Cloud Platforms:** *AWS, Microsoft Azure, GCS*  
**Deployment Pipelines:** *Apache Airflow, Jenkins, Octopus*  
**Experiment Tracking:** *Databricks and self-hosted MLFlow*  
**Amazon Web Services:** *ECS, IAM, Lambda, SageMaker, Step Functions, S3*  
**Container Services:** *Docker, Kubernetes*  
**Source Control:** *Github, GitLab, BitBucket, TFS, SVN, Flyway*  
**Operating System:** *Linux, MacOS, Windows*