Jordan Winemiller
Lead Data Scientist

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👤 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

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

October 2022 from March 2020

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

- Implemented internal concurrent queues to stop race conditions in service layer in .NET
- Managed Microsoft SQL Server, PostgreSQL, RabbitMQ, and NoSQL instances for SAAS platforms

**April 2017
from
November 2015**

Senior Business Intelligence Engineer   ⚲ Mission, KS
Cox Automotive - Business Intelligence Team for Automotive CRM Solution
Projects
- Architected the reporting and analytics platform for CRM external clients
- Developed the Data Gateway solution including databases, web API layer, and the Azure management proxy
- Developed key performance indicators to illustration individual rankings to clients against similarity, geographic, and global populations leading to client revenue

Research
- Vetted Tableau and Spotfire as an enterprise solution for internal reporting
- Designed data model to support hierarchy segmentation for CRM including analytics and reporting by clients, and client groups
- Designed infrastructure for business intelligence team in production, and two (2) pre-production environments

Key Responsibilities
- Worked across multiple functional departments translating business problems into solvable cases with emphasis on anticipating future state product requirements
- Led development teams in building customer retention reporting platform using WCF, ASP.NET Web API, and React JS
- Collaborated with Development Operations in transitioning applications to continuous integration and deployment standards

**November 2015
from
March 2015**

Software Engineer   ⚲ Mission, KS
Cox Automotive - Internal Solution Team for Automotive CRM Solution
- Designed documentation for integrations for Astera ETL software and Mulesoft technologies
- Composed the client-facing documentation for Data Gateway API solution
- Embedded the proof of concept reporting and analytics platform into the CRM for external clients
- Tested four (4) proof of concepts; two (2) are currently used as enterprise solutions
- Collaborated with data services team in planning the migration of historical data from transactional database servers

**March 2015
from
March 2014**

Systems Analyst   ⚲ Kansas City, MO
Kansas City Life Insurance Company - Illustration Team for Actuarial Department
- 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
- Trained new employees in product calculations, regulatory guidelines, application development, and assisting agents
- Designed universal life product calculations in Microsoft Excel to be used for test-driven development
- Wrote manual calculations for term life insurance products, universal life insurance products, and the indexed universal life product
- Designed tests and corrected new engine calculations for universal life products
- Maintained and deployed three (3) websites, and one (1) stand-alone software solution with continuous updates and applications
- Assisted Data Warehouse Engineer in transferring and administrating data controls for mainframe systems (Cobol), local servers, and cloud servers

**May 2013
from
January 2014**

Mechanical Engineering Co-Op   ⚲ Kansas City, MO
SPX Cooling Technologies - Engineering Company for Evaporative Cooling
- Planned and coordinated the testing of CTI Tower for 2013 certification for the NC series of towers
- Led two (2) projects; in the capacity of developing test plans , implementing testing procedures and analyzing test data
- Developed database schemas for tracking the calibration of rate flow instruments

- 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   📍 Kansas City, KS
Applied Statistics and Analytics
University of Kansas School of Medicine
Graduated Mu Sigma Rho
National Honorary Society for Statistics

Graduate Certificate   📍 Kansas City, KS
Biostatistics
University of Kansas School of Medicine
Advanced coursework in Bayesian and Statistical Inference

Bachelor of Science   📍 Kansas City, MO
Mathematics and Statistics
University of Missouri - Kansas City

📈 PROFESSIONAL DEVELOPMENT

American Statistical Association
  Joint Statistical Meetings, *2019 - 2024*
  Weighted Methods in Surveys, *2020*
  Bayesian Thinking: Fundamentals, Regression, and Multilevel Modeling, *2020*

15th 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

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

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

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	Business	Software
• Bayesian Inference	• Ability to Plan and Organize	• Agile Software Development
• Categorical and Survival Analysis	• Business Relations	• Algorithmic Efficiency
• Data Analysis	• Communication	• API Development
• Data Modeling	• Conflict Management	• Application Monitoring
• Deep Learning	• Critical Thinking	• Architecture Patterns
• Experimental Design	• Decision Making	• Cyclomatric Complexity
• Linear Models	• Leadership	• Data Modeling and Governance
• Machine Learning	• Mentoring	• Deployment Pipelines
• Mathematical Statistics	• Problem Solving	• Event-Driven Programming
• Multivariate Statistical Analysis	• Product Development	• Functional/Technical Documentation
• Nonparametric Methods	• Program/Project Management	• Master Data Management
• Statistical Computing	• Stakeholder Engagement	• Scrum Methodologies
• Statistical Inference	• Strategic Planning	• Software Development Lifecycle
• Visualization Analysis and Design	• Technical Notion	• 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 MLib, 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*