

Jeremy Weter

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Professional Summary

Data Scientist with extensive experience in applying machine learning, data analysis, and statistical modeling to drive actionable insights and optimize processes. Proficient in Python, R, and cloud computing (AWS, GCP, Azure), with a strong background in pharmaceuticals and biotechnology. Demonstrated success in leveraging data-driven methodologies to solve complex problems and enhance decision-making.

Skills

Machine Learning

- **Supervised Learning:** Linear Regression, Logistic Regression, Ridge Regression, LASSO, Elastic Net, K-Nearest Neighbors (KNN), Support Vector Machines (SVM), Decision Trees, Ensemble Models (Random Forest, Gradient Boosting)
- **Model Evaluation & Tuning:** MSE, RMSE, F1 Score, ROC-AUC, Cross-Validation Techniques, Hyperparameter Tuning
- **Handling Imbalanced Data:** Stratified Sampling, Oversampling, Undersampling Techniques
- **Feature Engineering:** Variable Transformation, Polynomial Features, Feature Scaling, Encoding Techniques

Statistical Analysis

- **Hypothesis Testing:** Frequentist and Bayesian Approaches, t-tests, ANOVA, Chi-square, P-Values, Significance Levels, Type I/II Errors
- **Exploratory Data Analysis (EDA):** Identifying Patterns, Anomaly Detection, Statistical Summaries, Data Visualization
- **Probability Distributions:** Normal, Binomial, Poisson

Data Management

- **Data Retrieval:** SQL, NoSQL, APIs, Cloud (AWS, GCP)
- **Data Cleaning & Preparation:** Handling Missing Data, Outliers, Normalization, Data Integration
- **Data Wrangling:** Pandas, NumPy for Data Manipulation and Preparation

Programming Languages

- **Python:** Data Analysis (Pandas, NumPy), Machine Learning (Scikit-learn, TensorFlow), Visualization (Matplotlib, Seaborn)
- **R:** Data Manipulation and Visualization (ggplot2, dplyr)
- **SQL:** Complex Query Writing, Data Retrieval and Aggregation
- **C, Java:** Basic Knowledge for Performance-Critical Applications

Data Visualization

- **Visualization Tools:** Matplotlib, Seaborn, Jupyter Notebooks
- **Dashboarding:** Tableau for Interactive Visualizations and Dashboards

Cloud Computing

- **AWS:** EC2, S3, SageMaker for Model Deployment and Data Management
- **GCP:** BigQuery, Cloud Storage for Scalable Data Processing
- **Azure:** Azure ML, Blob Storage for Cloud-Based Machine Learning

Project Management

- **Agile Methodologies:** Scrum, Kanban for Project Management
- **Stakeholder Communication:** Presentations, Technical Writing, Reports

Certifications

Data Science Certifications

- IBM Data Science Professional Certificate (2023)
- IBM Introduction to Data Science (2023)
- IBM Data Analysis (2023)

Programming Certifications

- IBM Python Programming (2023)
- IBM R Programming (2023)
- IBM SQL (2023)
- Kaggle Python (2024)

Machine Learning Certifications

- IBM Machine Learning (2023)

- IBM Statistical Machine Learning (2023)
- IBM Introduction to Machine Learning (In Progress)

Cloud and Data Management Certifications

- IBM Cloud (2023)
- IBM Data Model (2023)

Regulatory Compliance Certifications

- Coursera Regulatory Compliance Specialization (2024)

Professional Experience

Chemical Analyst - Scientist II Manufacturing Sciences

Thermo Fisher Scientific AS / Life Technologies AS – Oslo / Lillestrøm, Norway

April 2017 - June 2018

- Developed analytical methodologies for precise characterization of magnetic microbeads.
- Managed quality control processes for pre-production and post-production stages.
- Conducted stability studies to ensure long-term product reliability.
- Analyzed experimental data using Python and R, compiled reports for stakeholders and regulatory bodies.
- Specialized in sample preparation, chemical analysis, and laboratory instrument maintenance.
- Optimized legacy instrumentation workflow by virtualizing the instrument's software on a high-performance virtual machine, reducing processing time by weeks and enabling more in-depth analysis, resulting in early project completion.
- Collaborated with cross-functional teams to develop new products and improve processes.

Formulations Chemist

Monsanto – Creve Coeur, Missouri

February 2016 - August 2016

- Conducted tests on surfactants and chemicals, meticulously recording laboratory work.
- Designed and implemented multivariate studies to refine product formulations.
- Managed long-term stability studies and generated comprehensive reports.
- Developed prototype products for evaluation in focus groups and greenhouse trials.
- Improved bioavailability of active ingredients with low solubility through innovative formulation adjustments.

Chemist II

Sensient Colors INC. – St. Louis, Missouri

December 2015 - January 2016

- Operated wet and analytical chemistry techniques for comprehensive sample analysis.
- Conducted allergen tests and prepared samples for trace heavy metal analysis.
- Communicated findings through oral and written reports, collaborated with team members.
- Ensured calibration and maintenance of instruments, maintained laboratory cleanliness.
- Provided guidance and training to junior chemists and technicians.

Quality Technician

Par-Way Tryson – St. Clair, Missouri

November 2014 - June 2015

- Conducted comprehensive tests on oils and ingredients, assessed specific gravity, viscosity, pH, and refractive index.
- Analyzed test results in Excel to monitor and identify quality trends.
- Managed multiple experiments, ensured rigorous laboratory standards, and precise calibration of instruments.
- Contributed to the development and implementation of quality control procedures.

Research and Design Chemist

BioSpan Technologies INC. – Washington, Missouri

October 2013 – November 2014

- Integrated Organic Chemistry and Microbiology to design innovative experiments.
- Utilized FTIR Spectrometry for sample identification.
- Developed custom solutions for specific customer needs, contributed to scientific research reports.
- Managed laboratory tasks from sample preparation to formulation of chemical standards.
- Collaborated with clients to understand needs and provide tailored solutions.

Chemical Analyst

Scutter Enterprises LLC – O'Fallon, Missouri

July 2013 - October 2013

- Operated atomic absorption flame spectrometer for accurate measurement of metal concentrations.
- Managed laboratory setup and inventory, ensured efficient operations.
- Conducted sample preparation and chemical standard formulation.
- Implemented safety protocols for handling volatile acids and gases.
- Assisted in the development of new analytical methods.

Research Scientist

Maryville University – Saint Louis, Missouri

June 2013 - August 2013

- Developed and launched a web-based learning module on Atomic Absorption Flame Spectrometry.
- Created detailed photo diagrams and content for peer review.

- Utilized WordPress for web design and content development.
- Presented the MicroSpec Project at Pittcon 2014, showcasing a micro-scale UV/Vis spectrometer.

Education

Bachelor of Science in Biochemistry

Maryville University, St. Louis, MO

Graduated in May 2014

Minors in Chemistry, Philosophy, and Psychology

Honors: Dean's List (2009-2012)

Patent: Miniaturized spectrometer for sensitive and robust use

Patents

Patent Title: Micro-scale UV/Vis Spectrometer Using Bluetooth Low-Energy Technology

Patent Number: WO2015112919A3

Date Granted: August 6, 2015

Description: Designed and implemented an innovative micro-scale UV/Vis spectrometer for dye analysis with an accompanying iPad app for measurement and data analysis.