Kristina Halbig
Data Scientist

Pasadena, CA | 201-232-8213 | kristinadhalbig@gmail.com | linkedin.com/in/khalbig | https://fragariachemist.github.io/

As a data scientist with a strong foundation in analytical chemistry, I leverage my expertise in quantitative analysis, experimental design, and problem-solving to tackle complex data challenges. With a Bachelor of Science in Chemistry, I bring a unique perspective to data science, allowing me to extract insights from diverse datasets and develop innovative solutions. My decade of experience in project management, data verification, and quality assurance further enhances my ability to design and manage strategic data initiatives that drive business success. Additionally, my technical leadership and data-driven analysis skills, developed through hands-on experience in various data science projects, including machine learning, natural language processing, and predictive modeling, enable me to deliver high-impact results.

SKILLS
Coding: Application Programming Interfaces (API), Data Cleaning, Data Wrangling, Keras, NumPy, Pandas, Python, Scikit-Learn, spaCy, SQL, TensorFlow
Visualization: Matplotlib, Seaborn, Tableau
Software: Github, Jupyter Lab, Slack, Streamlit
Machine Learning: Classification, Clustering, Decision Trees, Linear/Logistic Regression, Neural Networks, NLP, Predictive Modeling, Supervised/Unsupervised Learning

RELEVANT PROFESSIONAL DATA SCIENCE EXPERIENCE

Encore Labs   **Pasadena, California | 07/2018 - 02/2024**
Senior Analytical Chemist
- Led data wrangling of over 10,000 data points per day, supporting 270 clients and generating $600k in monthly revenue.
- Developed and implemented Tableau dashboards to visualize 500 geographic data points, resulting in improved understanding of business performance and strategic decision-making.
- Implemented a QBench LIMS system to automate the upload and approval of data, ensuring proper handling of more than 5k data points per day and reducing errors to less than 5% (from 15%).

The J.M. Smucker Company   **Burbank, California | 06/2015 - 07/2018**
Analytical Chemist
- Directed analysis and data wrangling of diverse ingredient datasets across 100 product lines, processing data packets for 20 samples daily. Led training, oversaw analytical instrument maintenance, and documented lab procedures.
- Maintained compliance with industry standard regulations, overseeing the audit of 75 standard operating procedures to ensure compliance and assisting with the acquisition of an ISO 17025 certification.
- Performed cost analysis, resulting in $400 daily savings through efficient purchasing.

PROJECTS   **May 2024 - Present**
Ravelry Knitting Pattern Recommender System
NLP (spaCy), Streamlit, API Scripting, Unsupervised Learning
- Engineered a recommender system with machine learning and spaCy NLP, integrating a 15,000 pattern database into a Streamlit app.
- Developed an API script using Ravelry's API to extract pattern information and images, transforming data into a structured pandas dataframe.
- Integrated the recommender dataframe into a Streamlit app, enabling users to input a favorite pattern by name and receive 5 recommendations of similar knitting patterns.

Subreddit Post Classifier Using Logistic Regression and NLP
Logistic Regression, NLP (spaCy), Naïve Bayes, Scikit-learn   **March 2024 – April 2024**
- Developed a tool using Web APIs and NLP to classify subreddit posts related to fountain pens.
- Leveraged logistic regression and natural language processing to analyze subreddit posts, identifying the top 20 phrases and brand names related to fountain pens and gaining insights into community preferences and opinions.
- Utilized GridSearch and pipelines to find the best performing model and prevent data leakage.\

EDUCATION

General Assembly   **Remote | March 2024 – June 2024**
Data Science Immersive Certificate of Completion
- Successfully completed 12-week immersive bootcamp, utilizing data exploration and data science techniques to execute 4 projects and a capstone presentation.

California State University, Northridge   **Northridge, CA | Graduated: 2014**
Bachelor of Science (BS) in Chemistry