# ELDIN SAHBAZ

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## SUMMARY

Data science leader with 6 years of experience generating quantifiable business results in cost savings, efficiency optimization, and risk mitigation — delivering innovative patent–pending machine learning and artificial intelligence solutions. Demonstrated experience leading projects, performing stakeholder management, and interfacing with cross-functional teams.

## PROFESSIONAL EXPERIENCE

**Senior Data Scientist**                                                February 2023 - Present
*BP*                                                                            *Denver, Colorado*

· Developed and executed data science strategy and business development initiatives for machine learning and artificial intelligence in the oil and gas industry.

**Data Scientist**                                                         June 2018 - February 2023
*INFICON*                                                                      *Syracuse, New York*

· Directed patent-pending advances in computational chemistry for semiconductor sensor technologies via machine learning for time series utilizing PyTorch, Scikit-learn, fastDTW, Statsmodels.tsa, SciPy.stats, SciPy.interpolate, and SciPy.optimize — driving automation with projected annual cost savings in excess of US$500k.

· Executed continuous improvement efforts for process automation and optimization by creating a novel bijective/invertible deep neural network utilizing PyTorch — achieving a 95% increase in model accuracy.

· Led technical reviews to define mathematical foundations for sensor processing algorithms — documenting their premises and implementation logic, designing an A/B test using SciPy.stats and Nolds, and delivering an improved algorithm using SciPy.optimize and Statsmodels — yielding a 21% increase in sensor accuracy.

· Managed studies examining and establishing theoretical foundations for chemical detection and monitoring systems — contributing to high–priority product development efforts expected to yield 52% revenue growth.

· Established KPIs and executed simulation A/B tests via synthetic data utilizing PySwarms, SciPy.optimize, SciPy.stats, and SciPy.integrate — yielding 50% coverage across chemical detection and monitoring systems.

## PATENTS & PUBLICATIONS

**Method of Auto Tuning One or More Sensors**                                      August 2022
*U.S. Patent and Trademark Office*                                             *Patent Pending*

## EDUCATION

**Syracuse University**                                                                May 2018
*Master of Science   | Computer Science*

**Syracuse University**                                                                May 2017
*Bachelor of Science | Computer Science*                                      *Summa Cum Laude*

## SKILLS & COMPETENCIES

| | |
|---|---|
| **Software & Tools** | Python, PyTorch, Scikit–learn, Statsmodels, Pandas, SciPy, NumPy, NLTK, Gensim, OpenCV, Nolds, Seaborn, Matplotlib, NetworkX, billiard, ctypes, Linux, Git |
| **Competency Areas** | AI, Deep Learning, Machine Learning, Statistical Learning, Linear & Nonlinear Modeling, Numerical Optimization, Regression, Classification, Statistics, Probability, Time Series, Statistical Signal Processing, Data Analysis, Data Mining |