

# ELDIN SAHBAZ

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## SUMMARY

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Data science leader with 6+ years of experience generating quantifiable business results — delivering innovative patent-pending machine learning and artificial intelligence solutions. Demonstrated skills in business development and stakeholder management, leading projects, and interfacing with cross-functional teams.

## PROFESSIONAL EXPERIENCE

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### Senior Data Scientist *BP*

February 2023 - Present  
*Denver, Colorado*

- Managed business development initiatives and established a strategic partnership with Subsurface Technology — identifying opportunities projected to increase unconventional reservoir exploration success by 17%.
- Enhanced environmental anomaly detection via Scikit-learn and EMD — achieving a 99% increase in F1 score.

### Data Scientist *INFICON*

June 2018 - February 2023  
*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 annual cost reductions forecasted to be 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 — realizing a 21% increase in sensor accuracy.
- Established KPIs and executed simulation A/B tests via synthetic chemical data utilizing PySwarms, SciPy.optimize, SciPy.stats, and SciPy.integrate — yielding 50% coverage across chemical detection/monitoring systems.

## PATENTS & PUBLICATIONS

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

August 2022  
*Patent Pending*

## EDUCATION

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### Syracuse University *Master of Science | Computer Science*

May 2018

### Syracuse University *Bachelor of Science | Computer Science*

May 2017  
*Summa Cum Laude*

## SKILLS & COMPETENCIES

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**Software & Tools** Python, PyTorch, Scikit-learn, Statsmodels, Pandas, SciPy, NumPy, NLTK, Gensim, OpenCV, Seaborn, Matplotlib, NetworkX, AWS SageMaker, Power BI, 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