

# ELDIN SAHBAZ

Syracuse, New York, USA

+1 (607) 597-9607 | sahbaz.eldin@gmail.com

eldin.home.blog | linkedin.com/in/eldinsahbaz | github.com/eldinsahbaz

## SUMMARY

Recognized data science leader generating quantifiable business results in cost reduction, profitability improvement, and process optimization — delivering innovative patent pending AI-powered solutions. Demonstrated experience scoping and leading projects, designing robust unbiased studies and experiments, analyzing time series and signals, composing custom machine learning and artificial intelligence models/algorithms, interfacing with cross-functional teams and communicating insights to stakeholders, and deploying models to production.

## PROFESSIONAL EXPERIENCE

### Data Scientist

*INFICON*

June 2018 - Present

*Syracuse, New York*

- Directed significant technical advances in manufacturing optimization for semiconductor sensor technologies via machine learning for time series utilizing Scikit-learn, fastDTW, Statsmodels.tsa, SciPy.stats, SciPy.interpolate, and SciPy.optimize — driving automation efforts with projected annual cost savings in excess of US\$500k.
- 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 — covering 50% of the chemical detection/monitoring systems.

## PATENTS & PUBLICATIONS

### Method of Auto Tuning One or More Sensors

*U.S. Patent and Trademark Office*

August 2022

*Patent Pending*

## INVITED PRESENTATIONS

### Data Science for the Mass Spectrometer

*INFICON Data Analytics Summit*

November 2020

### Get Started with Machine Learning and AI Today!

*INFICON Data Analytics Summit*

November 2020

## EDUCATION

### Syracuse University

*Master of Science | Computer Science*

May 2018

### Syracuse University

*Bachelor of Science | Computer Science*

May 2017

*Summa Cum Laude*

## SKILLS & COMPETENCIES

**Programming Languages** Python, MATLAB, R, SQL, C++

**Software & Tools** PyTorch, Scikit-learn, Statsmodels, Pandas, SciPy, NumPy, 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