

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 patent pending advances in manufacturing optimization 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.
- 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

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

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