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 state–of–the–art 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　　　　　　　　　　　　　　　　　　　　　　　　　　June 2018 - Present
INFICON　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Syracuse, New York*

· Directed significant technical advances in manufacturing optimization for semiconductor sensor technologies via machine learning for time series utilizing the fastDTW, Statsmodels.tsa, SciPy.stats, SciPy.interpolate, and SciPy.optimize libraries — promoting efficiency and driving 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 a larger product development effort expected to yield 52% revenue growth.

· Executed simulation–based A/B tests using synthetically generated chemical data via 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*

INVITED PRESENTATIONS

Data Science for the Mass Spectrometer　　　　　　　　　　　　　　　　November 2020
INFICON Data Analytics Summit

Get Started with Machine Learning and AI Today!　　　　　　　　　　　　November 2020
INFICON Data Analytics Summit

EDUCATION

Syracuse University　　　　　　　　　　　　　　　　　　　　　　　　　　　May 2018
Master of Science　| Computer Science

Syracuse University　　　　　　　　　　　　　　　　　　　　　　　　　　　May 2017
Bachelor of Science | Computer Science　　　　　　　　　　　　　　　*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