

ELDIN SAHBAZ

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SUMMARY

Recognized data science leader with a proven track record of delivering innovative solutions and intelligent algorithms for chemical sensing technologies. Experienced in planning and scoping research projects, designing experiments, analyzing time series and signals, developing custom machine learning and artificial intelligence models, communicating insights to stakeholders, and interfacing with cross-functional teams to deploy models to production. Produced state-of-the-art solutions for semiconductor sensor technologies — generating a 21% gain in sensor accuracy and optimizing manufacturing with annual projected cost savings above US\$500k.

PROFESSIONAL EXPERIENCE

Data Scientist

INFICON

June 2018 - Present

Syracuse, New York

- Directed significant innovations in manufacturing optimization for semiconductor sensor technologies utilizing fastDTW, Nolds, SciPy.interpolate, and SciPy.optimize — projecting annual cost savings in excess of US\$500k.
- Managed technical reviews to define mathematical foundations for sensor processing algorithms — documenting their implementation logic and assumptions, 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.
- Led studies examining and establishing theoretical foundations for chemical detection and monitoring systems — contributing to a larger product development effort with 52% expected revenue growth.
- Created simulation-based compound identification A/B tests covering 50% of the chemical detection and monitoring systems — synthesizing chemical data via SciPy.optimize, SciPy.stats, SciPy.integrate, and PySwarms.

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

Approaches to Automatic Text Summarization

Syracuse University iSchool Poster Session

April 2018

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, NLTK, Gensim, openCV, Nolds, Seaborn, Matplotlib, NetworkX, billiard, ctypes, Linux, Git

Competency Areas

AI, Deep Learning, Machine Learning, Statistical Learning, Linear Modeling, Nonlinear Modeling, Numerical Optimization, Regression, Classification, Statistics, Probability, Time Series Analysis, Statistical Signal Processing, Data Analysis, Data Mining, Data Visualization, Algorithms, Design Patterns