

# ELDIN SAHBABZ

Syracuse, New York, USA

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## SUMMARY

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Recognized data science leader with a graduate education in computer science and a proven record of delivering numerous quantifiable business impacts via innovative state-of-the-art solutions in cost reduction, profitability improvement, and process optimization. Demonstrated experience in planning and scoping research projects, designing robust scientific studies and experiments (e.g., A/B tests), analyzing time series and signals, developing custom machine learning and artificial intelligence models, interfacing with cross-functional teams, communicating insights to stakeholders, and deploying models to production.

## PROFESSIONAL EXPERIENCE

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### Data Scientist

INFICON

June 2018 - Present

Syracuse, New York

- Directed technical developments with significant manufacturing optimization innovations for semiconductor sensor technologies utilizing the fastDTW, Nolds, Statsmodels.tsa, SciPy.interpolate, and SciPy.optimize Python libraries — driving projected annual manufacturing cost savings in excess of US\$500k.
- Led 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.
- Managed studies examining and establishing theoretical foundations for chemical detection and monitoring systems — contributing to a larger product development effort with 52% expected revenue growth.
- Executed simulation-based A/B tests for compound identification with 50% chemical detection and monitoring system coverage — synthesizing chemical data via SciPy.optimize, SciPy.stats, SciPy.integrate, and PySwarms.

## INVITED PRESENTATIONS

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### 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

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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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**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