ELDIN SAHBAZ

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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 — 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 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 synthesized chemical data utilizing PySwarms, SciPy.optimize, SciPy.stats, and SciPy.integrate — covering 50% of the chemical detection/monitoring systems.

Research Experience for Undergraduates (REU) — June 2017 - August 2017
Syracuse University | Data Lab — *Syracuse, New York*

· Conducted research under the supervision of Dr. Reza Zafarani (Electrical Engineering and Computer Science).

· Modeled the expected number of views for social media content via an ensemble of boosting classifiers.

Undergraduate Assistant — January 2017 - May 2017
Syracuse University — *Syracuse, New York*

· Held routine office hours for *Programming Languages: Theory & Practice (CIS 352)*.

Software Engineer — June 2015 – September 2015
Self–employed Contractor — *Syracuse, New York*

· Sub–contracted on document management systems for government clients and a Forbes Global 2000 client.

Undergraduate Research Assistant — August 2014 - May 2015
Syracuse University | The Hosein Research Group — *Syracuse, New York*

· Conducted research under the supervision of Dr. Ian Hosein (Biomedical and Chemical Engineering).

· Awarded the Dean's Leadership Grant in support of ambitious undergraduate research endeavors.

· Quantified energy loss on solar cell surfaces via wave propagation models that simulate light trajectories.

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

Automatic Text Summarization — Deep Learning & Classical Approaches April 2018
Syracuse University iSchool Poster Session

Characterizing Popularity Growth of Social Media Content August 2017
Electrical Engineering & Computer Science REU Seminar

PROFESSIONAL DEVELOPMENT

Linux Kernel Internals and Development (LFD420) December 2019
The Linux Foundation

Machine Learning Workshop — Model Predictive Control & Process Analytics June 2019
INFICON

Embedded Linux Development with Yocto Project (LFD460) June 2018
The Linux Foundation

HONORS & AWARDS

Graduate Merit Scholarship August 2017 - May 2018
Syracuse University

Summa Cum Laude May 2017
Syracuse University

The Warren Semon Prize May 2017
Syracuse University

Dean's Leadership Grant September 2014
Syracuse University

Dean's List August 2014 - May 2017
Syracuse University

The Founders' Scholarship August 2014 - May 2017
Syracuse University

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