ELDIN SAHBAZ

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SUMMARY

Data science leader with 6+ years of experience generating quantifiable business results — delivering innovative patent–pending machine learning and artificial intelligence solutions. Demonstrated skills in business development and stakeholder management, leading projects, and interfacing with cross-functional teams.

PROFESSIONAL EXPERIENCE

Senior Data Scientist — February 2023 - Present
BP — *Denver, Colorado*

· Managed business development initiatives and established a strategic partnership with Subsurface Technology — identifying opportunities projected to increase unconventional reservoir exploration success by 17%.
· Enhanced environmental anomaly detection via Scikit-learn and EMD — achieving a 99% increase in F1 score.

Data Scientist — June 2018 - February 2023
INFICON — *Syracuse, New York*

· Directed patent-pending advances in computational chemistry 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 annual cost reductions forecasted to be in excess of US$500k.
· Executed continuous improvement efforts for process automation and optimization by creating a novel bijective/invertible deep neural network utilizing PyTorch — achieving a 95% increase in model accuracy.
· 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 — realizing a 21% increase in sensor accuracy.
· Established KPIs and executed simulation A/B tests via synthetic chemical data utilizing PySwarms, SciPy.optimize, SciPy.stats, and SciPy.integrate — yielding 50% coverage across chemical detection/monitoring systems.

Research Experience for Undergraduates — June 2017 - August 2017
Syracuse University — *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.

Software Engineer — June 2015 – September 2015
Self–employed — *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 — *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

Improving Mass Spectrometry Signal Accuracy   November 2020
INFICON Data Analytics Summit

Get Started with Machine Learning and AI   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

Power BI — Reporting and Model Building   February 2023
Havens Consulting

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

Machine Learning Workshop — Model Predictive Control & Process Analytics   June 2019
Dr. S. Joe Qin

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

Software & Tools	Python, PyTorch, Scikit–learn, Statsmodels, Pandas, SciPy, NumPy, NLTK, Gensim, OpenCV, Seaborn, Matplotlib, NetworkX, AWS SageMaker, Power BI, 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