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