

ELDIN SAHBAZ

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SUMMARY

Data science leader with 6+ years of experience generating quantifiable business results — directing business development, stakeholder management, project management, cross-functional collaboration, and IP development. Demonstrated proficiency in delivering innovative Artificial Intelligence and Machine Learning solutions.

PROFESSIONAL EXPERIENCE

Senior Data Scientist *BP*

February 2023 – Present
Denver, Colorado

- Managed business development and executed an MoU with Subsurface Technology — projecting an immediate **>300% increase** in project intake and a **17% increase** in unconventional reservoir exploration successes.

Data Scientist *INFICON*

June 2018 – February 2023
Syracuse, New York

- Directed **patent-pending advances** for semiconductor sensor technologies utilizing Scikit-learn, fastDTW, Statsmodels.tsa, SciPy.stats, SciPy.interpolate, and SciPy.optimize — **provisioning Neural Processing Units** for next-generation sensors and driving annual cost reductions forecasted to be **in excess of US\$500k**.
- Invented a bijective neural network for density estimation via PyTorch — yielding a **95% increase** in accuracy.
- Led efforts defining mathematical foundations for signal processing algorithms and designed an A/B test using SciPy.stats and Nolds — delivering a **21% increase** in sensor fidelity using SciPy.optimize and Statsmodels.
- Established KPIs and executed A/B tests with simulated chemical data via PySwarms, SciPy.optimize, SciPy.stats, and SciPy.integrate — attaining **50% coverage** across chemical detection/monitoring systems.

Research Experience for Undergraduates *Syracuse University*

June 2017 – August 2017
Syracuse, New York

- Conducted research under the supervision of Dr. Reza Zafarani (Electrical Engineering and Computer Science).
- Modeled social media popularity via Scikit-learn and NLTK — reaching a **100% increase** in model accuracy.

Software Engineer *Self-employed*

June 2015 – September 2015
Syracuse, New York

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

Undergraduate Research Assistant *Syracuse University*

August 2014 – May 2015
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 materials science research.
- Quantified energy loss across solar cell surfaces in MATLAB using wave propagation models.

PATENTS & PUBLICATIONS

Method of Auto Tuning One or More Sensors *U.S. Patent and Trademark Office*

August 2022
Patent Pending

INVITED PRESENTATIONS

Improving Mass Spectrometry Signal Accuracy <i>INFICON Data Analytics Summit</i>	November 2020
Get Started with Machine Learning and AI <i>INFICON Data Analytics Summit</i>	November 2020
Automatic Text Summarization — Deep Learning & Classical Approaches <i>Syracuse University iSchool Poster Session</i>	April 2018
Characterizing Popularity Growth of Social Media Content <i>Electrical Engineering & Computer Science REU Seminar</i>	August 2017

PROFESSIONAL DEVELOPMENT

Advanced Power BI — Power Query and DAX <i>Havens Consulting</i>	April 2023
Power BI — Reporting and Model Building <i>Havens Consulting</i>	February 2023
Linux Kernel Internals and Development (LFD420) <i>The Linux Foundation</i>	December 2019
Machine Learning for Model Predictive Control & Process Analytics <i>Dr. S. Joe Qin</i>	June 2019

HONORS & AWARDS

Graduate Merit Scholarship <i>Syracuse University</i>	August 2017 – May 2018
Summa Cum Laude <i>Syracuse University</i>	May 2017
The Warren Semon Prize <i>Syracuse University</i>	May 2017
Dean's Leadership Grant <i>Syracuse University</i>	September 2014
Dean's List <i>Syracuse University</i>	August 2014 – May 2017
The Founders' Scholarship <i>Syracuse University</i>	August 2014 – May 2017

EDUCATION

Syracuse University <i>Master of Science Computer Science</i>	May 2018
Syracuse University <i>Bachelor of Science Computer Science</i>	May 2017 <i>Summa Cum Laude</i>

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