

ELDIN SAHBAZ

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SUMMARY

- Exploration & Development Data Science leader with **7+ years of experience** delivering **multimillion-dollar** initiatives and driving **patent-pending** Artificial Intelligence and Machine Learning solutions.
- Proven ability to direct Data Science strategy, business development, and project management within British Petroleum's upstream oil & gas division — specializing in the areas of **seismic imaging, reservoir characterization, production forecasting, and drilling & completions efficiency**.

PROFESSIONAL EXPERIENCE

Senior Data Scientist

British Petroleum (BP)

February 2023 – Present

Denver, Colorado

- Directed strategy and execution for BP US onshore Data Science and ML Engineering — **achieving 47% market share** in Exploration & Development and enabling the team's **63% market share** across the division.
- Generated **US\$10MM – US\$20MM annually** in value for Reservoir Engineering — **delivering the ML Refracturing Estimator** and increasing confidence in the Business Unit's Development program by **500%**.
- Founded the **strategic partnership** with Subsurface Technology and launched **Geoscience initiatives** modeling depositional systems — expected to yield **US\$5.5MM annually** for an asset's Development program.
- Managed an intern ESP predictive maintenance project — driving efforts to enhance production efficiency.

Data Scientist

INFICON

June 2018 – February 2023

Syracuse, New York

- Directed **patent-pending advances** for semiconductor sensor technologies and **provisioned Neural Processing Units** for next-generation sensors — driving annual cost reductions forecasted **in excess of US\$500k**.
- Invented the Bijective Neural Architecture for density estimation — yielding a **95% increase** in accuracy.
- Led efforts defining mathematical foundations for signal processing algorithms and designed A/B tests 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.

PATENTS & PUBLICATIONS

Method of Auto Tuning One or More Sensors

U.S. Patent and Trademark Office

August 2022

Patent Pending

PROFESSIONAL DEVELOPMENT

Core Analysis Workshop

UT Austin Bureau of Economic Geology

December 2023

Advanced Power BI — Power Query and DAX

Havens Consulting

April 2023

Power BI — Reporting and Model Building

Havens Consulting

February 2023

Linux Kernel Internals and Development (LFD420)

December 2019

The Linux Foundation

Machine Learning for Model Predictive Control & Process Analytics

June 2019

Dr. S. Joe Qin

INVITED PRESENTATIONS

Improving Mass Spectrometry Signal Accuracy

November 2020

INFICON Data Analytics Summit

Introduction to AI and Machine Learning

November 2020

INFICON Data Analytics Summit

Automatic Text Summarization — Deep Learning & Classical Approaches

April 2018

Syracuse University iSchool Poster Session

Characterizing Popularity Growth for Social Media Content

August 2017

Electrical Engineering & Computer Science REU Seminar

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 AWS SageMaker, Linux, Git, Python, PyTorch, Scikit-learn, Statsmodels, Pandas, SciPy, NumPy, NLTK, Gensim, OpenCV, Seaborn, Matplotlib, NetworkX

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