

ELDIN SAHBAZ

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SUMMARY

Program Manager and Data Scientist with **7+ years of proven success** establishing and scaling transformative, enterprise-level, AI/ML initiatives across the Petroleum and Semiconductor industries. Led the Data Science team's **63% market share** in AI developments across British Petroleum's US onshore O&G business and independently produced **US\$997MM in value**. Delivered **patent-pending** AI solutions in computational chemistry — **valued at US\$500M+ annually** — for INFICON's Semiconductor business.

PROFESSIONAL EXPERIENCE

Program Manager

British Petroleum (BP)

November 2023 – Present

Denver, Colorado

- Directed and executed strategy 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.
- Managed and deployed the Long-term Production Risk Assessment Simulation tool for Reservoir Engineering.
- Oversaw the AWS migration for PowerBI reports monitoring the Productivity Index and Saltwater Disposal.

Senior Data Scientist

British Petroleum (BP)

February 2023 – Present

Denver, Colorado

- Drove **US\$977MM** in the Bone Spring formation with a **US\$700MM NPV** well development plan, **US\$250MM** in Drilling & Completions cost reductions, and **US\$27MM** in core collection cost savings — launching **ML Lithology Recognition** and enabling regional fluid mobility assessments.
- Generated **US\$20MM annually** in value for Reservoir Engineering's EOR initiatives — **delivering the ML Refracturing Estimator** and increasing confidence in the Business Unit's Development program by **500%**.

Data Scientist

INFICON

June 2018 – February 2023

Syracuse, New York

- Directed the Automated Sensor Calibration development program for semiconductor sensor technologies — delivering **patent-pending advances** driving annual cost reductions forecasted **in excess of US\$500M**.
- 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

USPTO Application 18/686,753

February 2024

Patent Pending

PROFESSIONAL DEVELOPMENT

Core Analysis Workshop

UT Austin Bureau of Economic Geology

April 2024/December 2023

Advanced Power BI — Power Query and DAX

Havens Consulting

April 2023

Power BI — Reporting and Model Building
Havens Consulting

February 2023

Machine Learning for Model Predictive Control & Process Analytics
Dr. S. Joe Qin

June 2019

INVITED PRESENTATIONS

Neural Attention for Seismic Data Processing
BP Geophysics R&D Seminar

July 2024

Improving Mass Spectrometry Signal Fidelity
INFICON Data Analytics Summit

November 2020

Introduction to AI and Machine Learning
INFICON Data Analytics Summit

November 2020

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

April 2018

HONORS & AWARDS

Graduate Merit Scholarship
Syracuse University

August 2017 – May 2018

Summa Cum Laude
Syracuse University

May 2017

The Warren Semon Prize
Syracuse University

May 2017

Dean's Leadership Grant
Syracuse University

September 2014

Dean's List
Syracuse University

August 2014 – May 2017

The Founders' Scholarship
Syracuse University

August 2014 – May 2017

EDUCATION

Syracuse University
Master of Science | Computer Science

May 2018

Syracuse University
Bachelor of Science | Computer Science

May 2017
Summa Cum Laude

SKILLS & COMPETENCIES

Software & Tools AWS SageMaker, Linux, Git, Python, PyTorch, Scikit-learn, Statsmodels, Pandas, SciPy, NumPy, NLTK, Gensim, OpenCV, Seaborn, Matplotlib, SLB Techlog

Competency Areas AI, Deep Learning, Machine/Statistical Learning, Linear & Nonlinear Modeling, Numerical Optimization, Regression, Classification, Statistics, Probability, Time Series, Statistical Signal Processing, Data Analysis, Data Mining, Agile, CRISP-DM