

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\$20MM in annual 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

- 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%**.
- Launched **ML Lithology Recognition** for unconventional reservoirs in **partnership with Subsurface Technology** — expected to yield **US\$5.5MM annually** in the Bone Spring and Wolfcamp formations.

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

U.S. Patent and Trademark Office

August 2022

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

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

Characterizing Popularity Growth for Social Media Content
Electrical Engineering & Computer Science REU Seminar

August 2017

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