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 November 2023 – Present
British Petroleum (BP) *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 February 2023 – Present
British Petroleum (BP) *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%**.
- Drove **US$977MM** in the Bone Spring formation with a **US$700MM NPV** well development plan, **US$250MM D&C**, and cutting **US$27MM** in core collection — launching **ML Lithology Recognition**.

Data Scientist June 2018 – February 2023
INFICON *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 February 2024
USPTO Application 18/686,753 *Patent Pending*

PROFESSIONAL DEVELOPMENT

Core Analysis Workshop April 2024/December 2023
UT Austin Bureau of Economic Geology

Advanced Power BI — Power Query and DAX April 2023
Havens Consulting

Power BI — Reporting and Model Building February 2023
Havens Consulting

Machine Learning for Model Predictive Control & Process Analytics June 2019
Dr. S. Joe Qin

INVITED PRESENTATIONS

Neural Attention for Seismic Data Processing July 2024
BP Geophysics R&D Seminar

Improving Mass Spectrometry Signal Fidelity 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

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, 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