

ELDIN SAHBAZ

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SUMMARY

- Data science leader with **7 years of experience**, driving AI/ML-based innovation within BP's upstream oil & gas division in the areas of seismic interpretation, reservoir characterization, production optimization, drilling & completions efficiency, and predictive maintenance.
- Proven ability to generate quantifiable business results — directing strategy and business development, stakeholder management, project management, and intellectual property development.
- Demonstrated proficiency in identifying and delivering innovative, **patent-pending**, Artificial Intelligence and Machine Learning solutions.

PROFESSIONAL EXPERIENCE

Senior Data Scientist

British Petroleum (BP)

February 2023 – Present

Denver, Colorado

- Acquired a **23% share** of the internal upstream AI/ML market by cultivating a **300% increase** in Data Science project intake requests which **account for 60%** of all projects within the Data Science portfolio — projecting a **17% increase** in successful unconventional reservoir exploration through targeted innovation.
- Founded the **strategic partnership** with Subsurface Technology and **launched the joint** Geophysics initiative to elucidate stratigraphic attributes from depth migrated seismic stack volumes — expecting to **generate US\$1.5MM annually** from drilling & completions hazard prevention and increased oil & gas production.
- Managed an intern's artificial lift predictive maintenance effort aimed at minimizing production deferment in electric submersible pump (ESP) wells — forecasting an **11% increase in operational savings**.

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, SciPy.optimize, and SQL — **provisioning Neural Processing Units** for next-generation sensors and driving annual cost reductions forecasted **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.

PATENTS & PUBLICATIONS

Method of Auto Tuning One or More Sensors

U.S. Patent and Trademark Office

August 2022

Patent Pending

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, 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