

ELDIN SAHBAZ

Denver, Colorado, USA

+1 (607) 597-9607 | sahbaz.eldin@gmail.com

linkedin.com/in/eldinsahbaz | github.com/eldinsahbaz

SUMMARY

- Account Executive & Exploration/Development Data Science leader with **7+ years of experience**; driving AI/ML-based innovation within British Petroleum's (BP) upstream oil & gas division in the areas of seismic interpretation, reservoir characterization, production forecasting, and drilling & completions efficiency.
- 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 **31%** of the internal AI/ML market for US onshore oil and gas Exploration and Development, **accounting for 36%** of the Data Science portfolio, via targeted consultative campaigns — projecting a **17% increase** in successful unconventional reservoir exploration and development via fit-for-purpose innovation.
- Generated **US\$10MM – US\$20MM annually** in value for a Business Unit's Reservoir Engineering team by **delivering the ML Refracturing Model** — increasing the team's confidence in analyses by up to **500%**.
- 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** in drilling & completions efficiency and increased oil & gas production.
- Managed an intern's artificial lift predictive maintenance proof-of-concept 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 and **provisioned Neural Processing Units** for next-generation sensors — 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

INVITED PRESENTATIONS

Improving Mass Spectrometry Signal Accuracy

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

PROFESSIONAL DEVELOPMENT

Rock Core 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

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

June 2019

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, 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