ELDIN SAHBAZ

Denver, Colorado, USA

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

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

SUMMARY

- Exploration & Development Data Science leader with **7+ years of experience** delivering **multimillion–dollar** initiatives and driving **patent–pending** Artificial Intelligence and Machine Learning solutions.

- Proven ability to direct Data Science strategy, business development, and project management within British Petroleum's upstream oil & gas division — specializing in the areas of **seismic imaging, reservoir characterization, production forecasting, and drilling & completions efficiency**.

PROFESSIONAL EXPERIENCE

Senior Data Scientist   February 2023 – Present
British Petroleum (BP)   *Denver, Colorado*

· Directed strategy and execution 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.
· Generated **US\$10MM – US\$20MM annually** in value for Reservoir Engineering — **delivering the ML Refracturing Estimator** and increasing confidence in the Business Unit's Development program by **500%**.
· Founded the **strategic partnership** with Subsurface Technology and launched **Geoscience initiatives** modeling depositional systems — expected to yield **US\$5.5MM annually** for an asset's Development program.
· Managed an intern's ESP predictive maintenance project — driving efforts to enhance production efficiency.

Data Scientist   June 2018 – February 2023
INFICON   *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 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   August 2022
U.S. Patent and Trademark Office   *Patent Pending*

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, 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