

# ELDIN SAHBAZ

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## SUMMARY

Program Manager and Data Scientist with **~8 years of proven success** delivering key business objectives. Extensive experience establishing and scaling transformative, enterprise-level, AI/ML initiatives across the Petroleum and Semiconductor industries. Led the Data Science team's **62% 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

*British Petroleum (BP)*

November 2023 – Present

*Denver, Colorado*

- Directed and executed strategy for BP US onshore Data Science and ML Engineering — **achieving 45% market share** in Exploration & Development and enabling the team's **62% market share** across the division.
- Managed and deployed the Long-term Production Risk Assessment Simulation tool for Reservoir Engineering.
- Oversaw AWS PowerBI report migration monitoring the **Productivity Index** and **Salt Water Disposal**.

### Senior Data Scientist

*British Petroleum (BP)*

February 2023 – Present

*Denver, Colorado*

- Generated **US\$977MM** in the Bone Spring formation with a **US\$700MM NPV** well development plan, **US\$250MM** in Drilling & Completions cost reductions, and **US\$27MM** in core collection cost savings — launching **AI Lithofacies Prediction** and enabling regional fluid mobility and reservoir quality assessments.
- Drove **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%**.

### 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** and driving annual cost reductions forecasted **in excess of US\$500M**.
- 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.
- Invented the Bijective Neural Architecture for density estimation — yielding a **95% increase** in accuracy.
- 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.

### Research Assistant

*Syracuse University | Data Lab*

June 2017 – August 2017

*Syracuse, New York*

- Modeled social media engagement metrics, via repeated measures experiments, utilizing Scikit-learn and NLTK.

### Technology Analyst

*JPMorgan Chase & Co.*

June 2016 – August 2016

*Jersey City, New Jersey*

- Developed project business cases alongside senior team members and deployed code to live internal JPMC applications.

### Software Engineer

*Self-employed*

June 2015 – September 2015

*Syracuse, New York*

- Engineered information retrieval systems for **British Petroleum** and local government clients as a subcontractor.

### Undergraduate Research Assistant

*Syracuse University | Hosein Research Group*

August 2014 – May 2015

*Syracuse, New York*

- Awarded the **Dean's Leadership Grant** supporting simulation studies quantifying energy loss across solar cell surfaces.

PATENTS & PUBLICATIONS

Method of Auto Tuning One or More Sensors  
USPTO Application 18/686,753

February 2024  
Patent Pending

INVITED PRESENTATIONS

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

July 2024

Improving Mass Spectrometry Signal Fidelity  
INFICON Data Analytics Summit

November 2020

Automatic Text Summarization — Deep Learning & Classical Approaches  
Syracuse University iSchool Poster Session

April 2018

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

Machine Learning for Model Predictive Control & Process Analytics  
Dr. S. Joe Qin, President of Lingnan University

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, 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