

ELDIN SAHBAZ

Denver, Colorado, USA

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SUMMARY

Program Manager and Data Scientist with **~8 years of proven success** delivering on Objectives and Key business Results. Established and scaled enterprise-level Digital Transformation initiatives across the Petroleum and Semiconductor industries. Enabled Data Science's **65% overall AI/ML market share** across business functions within British Petroleum's US onshore O&G division and independently produced **\$997MM in value**. Delivered **patent-pending** AI-powered computational chemistry solutions — **valued at \$500M+ annually** — for INFICON's Semiconductor business.

PROFESSIONAL EXPERIENCE

Program Manager

November 2023 – Present

British Petroleum (BP)

Denver, Colorado

- Directed and executed Data Science & ML Engineering Digital Transformation strategy — achieving a **45% AI/ML market share** in Exploration & Development and enabling the team's **65% AI/ML market share** across the organization.
- Successfully delivered **88% of the planned Q2 features** in Data Science and ML Engineering within the project scope.
- Managed and productionalized the Long-term Production Risk Assessment app via Streamlit for Reservoir Engineering.
- Oversaw the Azure cloud to AWS cloud **Salt Water Disposal** and **Productivity Index** report migration.

Senior Data Scientist

February 2023 – Present

British Petroleum (BP)

Denver, Colorado

- Generated **\$977MM** in the Bone Spring formation with a well development plan **NPV of \$700MM**, Drilling & Completions cost reductions of **\$250MM**, and core collection avoidance amounting to **\$27MM** — launching **AI Lithofacies Prediction** in SLB Techlog, enabling regional fluid mobility assessments, and facilitating well development prioritization.
- Drove **\$20MM in annual value** for Reservoir Engineering's EOR program — productionalizing the **ML Refracturing Model** with Streamlit and inducing a **500% efficiency gain** in the stakeholders' well prospecting & assurance workflows.

Data Scientist

June 2018 – February 2023

INFICON

Syracuse, New York

- Directed the **patent-pending** Automated Sensor Calibration program — driving a forecasted **\$500M+** in annual cost reductions and **provisioning Neural Processing Units** for next-generation semiconductor sensor technologies.
- Led cross-functional efforts producing a **21% enhancement** to Mass Spec signal fidelity (SciPy.optimize/Statsmodels), designed A/B Quality Control tests (SciPy.stats/Nolds) for all Mass Spec sensors, and documented proprietary algorithms.
- Established KPIs and executed A/B simulation tests, generating synthetic GC-MS data using PySwarms and SciPy.optimize, SciPy.stats, and SciPy.integrate — attaining **50% coverage** across chemical detection and monitoring systems.
- Invented the Bijective Neural Architecture for density estimation via PyTorch — yielding a **95% increase** in model accuracy.

Research Assistant

June 2017 – August 2017

Syracuse University | Data Lab

Syracuse, New York

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

Technology Analyst

June 2016 – August 2016

JPMorgan Chase & Co.

Jersey City, New Jersey

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

Software Engineer

June 2015 – September 2015

Self-employed

Syracuse, New York

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

Undergraduate Research Assistant

August 2014 – May 2015

Syracuse University | Hosein Research Group

Syracuse, New York

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

PATENTS & PUBLICATIONS

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| Method of Auto Tuning One or More Sensors <i>USPTO Application 18/686,753</i> | February 2024 <i>Patent Pending</i> |
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INVITED PRESENTATIONS

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| Neural Attention for Seismic Data Processing <i>BP Geophysics R&D Seminar</i> | July 2024 |
| Improving Mass Spectrometry Signal Fidelity <i>INFICON Data Analytics Summit</i> | November 2020 |
| Automatic Text Summarization — Deep Learning & Classical Approaches <i>Syracuse University iSchool Poster Session</i> | April 2018 |

PROFESSIONAL DEVELOPMENT

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| Core Analysis Workshop <i>UT Austin Bureau of Economic Geology</i> | April 2024/December 2023 |
| Advanced Power BI — Power Query and DAX <i>Havens Consulting</i> | April 2023 |
| Machine Learning for Model Predictive Control & Process Analytics <i>Dr. S. Joe Qin, President of Lingnan University</i> | June 2019 |

HONORS & AWARDS

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|---|------------------------|
| Graduate Merit Scholarship <i>Syracuse University</i> | August 2017 – May 2018 |
| Summa Cum Laude <i>Syracuse University</i> | May 2017 |
| The Warren Semon Prize <i>Syracuse University</i> | May 2017 |
| Dean’s Leadership Grant <i>Syracuse University</i> | September 2014 |
| Dean’s List <i>Syracuse University</i> | August 2014 – May 2017 |
| The Founders’ Scholarship <i>Syracuse University</i> | August 2014 – May 2017 |

EDUCATION

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| Syracuse University <i>Master of Science Computer Science</i> | May 2018 |
| Syracuse University <i>Bachelor of Science Computer Science</i> | May 2017 <i>Summa Cum Laude</i> |

SKILLS & COMPETENCIES

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| Business | Strategy, Business Development, Stakeholder Management, Agile Project Management, OKRs, CRISP-DM |
| Technical | Artificial Intelligence, Deep Learning, Transfer Learning, Machine Learning, Linear & Nonlinear Modeling, Numerical Optimization, Regression, Classification, Statistics, Probability, Monte Carlo, Time Series, Statistical Signal Processing, Data Collection, Data Preprocessing, Data Analysis, Data Wrangling, Data Mining |
| Tools | AWS SageMaker, Linux, Git, Python, PyTorch, Scikit-learn, Pandas, SciPy, Statsmodels, NumPy, NLTK, Gensim, OpenCV, Seaborn, Matplotlib, SLB Techlog |