

# ELDIN SAHBAZ

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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 (BPX) and independently produced **\$997MM in value**. Delivered **\$500M+ in value annually** via **patent-pending** AI-powered computational chemistry solutions for INFICON's Semiconductor business unit.

## PROFESSIONAL EXPERIENCE

### Program Manager

November 2023 – Present

*British Petroleum (BP)*

*Denver, Colorado*

- Acquired **45% of Exploration & Development's AI/ML market** and enabled the team's **65% AI/ML market share** across the organization — directing and executing Data Science & ML Engineering Digital Transformation strategy.
- Delivered **all planned Q2 2024 features** successfully 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 **\$500M+** in forecasted annual cost reductions and **provisioned Neural Processing Units** to support **patent-pending** Automated Sensor Calibration advances natively on next-generation semiconductor sensor technologies.
- Led a **21% enhancement** in Mass Spec signal fidelity (SciPy.optimize/Statsmodels), designed A/B Quality Control tests (SciPy.stats/Nolds) for **all Mass Spec sensors**, and documented mathematical foundations for proprietary algorithms.
- Established **50% coverage** across chemical detection and monitoring systems — designing KPIs and executing A/B simulation tests via synthetic GC-MS data generated using PySwarms and SciPy.optimize, SciPy.stats, and SciPy.integrate.
- Achieved a **95% increase** in density estimation accuracy — inventing the Bijective Neural Architecture via PyTorch.

### 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

<b>Method of Auto Tuning One or More Sensors</b> <i>USPTO Application 18/686,753</i>	August 2023 <i>Patent Pending</i>
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INVITED PRESENTATIONS

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

PROFESSIONAL DEVELOPMENT

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

HONORS & AWARDS

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

EDUCATION

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

SKILLS & COMPETENCIES

<b>Business</b>	Strategy, Business Development, Stakeholder Management, Agile Project Management, OKRs, CRISP-DM
<b>Technical</b>	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
<b>Tools</b>	AWS SageMaker, Linux, Git, Python, PyTorch, Scikit-learn, Pandas, SciPy, Statsmodels, NumPy, NLTK, Gensim, OpenCV, Seaborn, Matplotlib, SLB Techlog, Atlassian Jira, Azure DevOps