

# ELDIN SAHBAZ

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## SUMMARY

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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

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### Program Manager

*British Petroleum (BP)*

November 2023 – Present

*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.
- Managed and productionalized the Long-term Production Risk Assessment app via Streamlit for Reservoir Engineering.
- Oversaw AWS migration efforts for the **Salt Water Disposal** and the **Productivity Index** PowerBI reports.

### Senior Data Scientist

*British Petroleum (BP)*

February 2023 – Present

*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

*INFICON*

June 2018 – February 2023

*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

*Syracuse University | Data Lab*

June 2017 – August 2017

*Syracuse, New York*

- Modeled social media engagement metrics, formulating 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

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INVITED PRESENTATIONS

Neural Attention for Seismic Data Processing <i>BP Geophysics R&amp;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

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

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

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

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