

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

British Petroleum (BP)

November 2023 – Present

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 Agile Features** in Data Science and ML Engineering within the project scope.
- Realized **\$4MM in annual cost reductions** — prioritizing resources to build and deploy ML Sand Flowback prediction.
- Coordinated stakeholder timelines and resources — developing and **launching ML Drilling AFE Cost prediction**.

Product Owner

British Petroleum (BP)

November 2023 – Present

Denver, Colorado

- 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

British Petroleum (BP)

February 2023 – Present

Denver, Colorado

- Generated **\$977MM** for the Permian Business Unit with a well development plan **NPV of \$700MM**, Drilling & Completions cost reductions of **\$250MM**, and core collection avoidance amounting to **\$27MM** — productionalizing **AI Lithofacies Prediction** in Techlog, enabling regional fluid mobility assessments, and facilitating well development prioritization.
- Drove **\$20MM in annual value** for Eagle Ford Reservoir Engineering and achieved a **500% increase** in efficiency for well prospecting & assurance workflows — launching **ML Refracturing Production Forecasting** via Streamlit.

Data Scientist

INFICON

June 2018 – February 2023

Syracuse, New York

- Directed **\$500M+** in forecasted annual cost reductions and **provisioned Neural Processing Units** to support **patent-pending** Automated Sensor Calibration advances directly 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

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

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

August 2023
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

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, Atlassian Jira, Azure DevOps