

ELDIN SAHBAZ

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SUMMARY

Program Manager and Data Scientist with **~8 years of proven success** delivering key business objectives. Established and scaled transformative, enterprise-level, Artificial Intelligence initiatives across the Petroleum and Semiconductor industries. Enabled Data Science's **65% AI/ML market share** across all business functions within British Petroleum's US onshore O&G division and independently produced **US\$997MM in value**. Delivered **patent-pending** AI-powered computational chemistry solutions — **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 Data Science and ML Engineering Digital Transformation strategies — **achieving 45% market share** in Exploration & Development and enabling the team's **65% overall market share** across the organization.
- Managed and deployed the Long-term Production Risk Assessment Simulation application for Reservoir Engineering.
- Oversaw AWS PowerBI report migration monitoring **Salt Water Disposal** and the **Productivity Index**.

Senior Data Scientist

British Petroleum (BP)

February 2023 – Present

Denver, Colorado

- Generated **US\$977MM in revenue** for the Bone Spring formation with a well development plan **NPV of US\$700MM**, Drilling & Completions cost reductions of **US\$250MM**, and core collection cost avoidance amounting up to **US\$27MM** — 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 — productionalizing the **ML Refracting Estimator** in Streamlit and increasing the stakeholder's confidence in the well development plan 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 cross-functional efforts defining mathematical foundations for signal processing algorithms and designed A/B tests via SciPy.stats and Nolds — delivering a **21% increase in sensor fidelity** using SciPy.optimize and Statsmodels.
- Invented the Bijective Neural Architecture for density estimation via PyTorch — yielding a **95% increase** in accuracy.
- Established KPIs and executed simulation A/B tests with synthetic chemical data built using PySwarms, SciPy.optimize, SciPy.stats, and SciPy.integrate — attaining **50% coverage** across chemical detection and monitoring systems.

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

INVITED PRESENTATIONS

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

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, Project Management, Agile, CRISP-DM
Technical	Deep Learning, Transfer Learning, Machine Learning, Linear & Nonlinear Modeling, Numerical Optimization, Regression, Classification, Statistics, Probability, 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