

ELDIN SAHBAZ

Denver, Colorado, USA

+1 (607) 597-9607 | sahbaz.eldin@gmail.com

linkedin.com/in/eldinsahbaz | github.com/eldinsahbaz

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

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