

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

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.
- 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** 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 **\$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 <i>USPTO Application 18/686,753</i> | August 2023 <i>Patent Pending</i> |
|---|--------------------------------------|

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, Atlassian Jira, Azure DevOps |