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 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 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 Eagle Ford Reservoir Engineering and a **500% efficiency gain** in their well prospecting & assurance workflows — productionalizing the **ML Refracturing Production Forecasting** model via Streamlit.

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 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 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 August 2023
USPTO Application 18/686,753 *Patent Pending*

INVITED PRESENTATIONS

Neural Attention for Seismic Data Processing July 2024
BP Geophysics R&D Seminar

Improving Mass Spectrometry Signal Fidelity November 2020
INFICON Data Analytics Summit

Automatic Text Summarization — Deep Learning & Classical Approaches April 2018
Syracuse University iSchool Poster Session

PROFESSIONAL DEVELOPMENT

Core Analysis Workshop April 2024/December 2023
UT Austin Bureau of Economic Geology

Advanced Power BI — Power Query and DAX April 2023
Havens Consulting

Machine Learning for Model Predictive Control & Process Analytics June 2019
Dr. S. Joe Qin, President of Lingnan University

HONORS & AWARDS

Graduate Merit Scholarship August 2017 – May 2018
Syracuse University

Summa Cum Laude May 2017
Syracuse University

The Warren Semon Prize May 2017
Syracuse University

Dean's Leadership Grant September 2014
Syracuse University

Dean's List August 2014 – May 2017
Syracuse University

The Founders' Scholarship August 2014 – May 2017
Syracuse University

EDUCATION

Syracuse University May 2018
Master of Science | Computer Science

Syracuse University May 2017
Bachelor of Science | Computer Science *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