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 and independently produced **$997MM in value**. Delivered **patent–pending** AI–powered computational chemistry solutions — **valued at $500M+ annually** — for INFICON's Semiconductor business.

PROFESSIONAL EXPERIENCE

Program Manager — November 2023 – Present
British Petroleum (BP) — *Denver, Colorado*

· Directed and executed Data Science & ML Engineering Digital Transformation strategy — achieving a **45% AI/ML market share** in Exploration & Development and enabling the team's **65% AI/ML market share** across the organization.
· Managed and productionalized the Long–term Production Risk Assessment app via Streamlit for Reservoir Engineering.
· Oversaw AWS migration efforts for the **Salt Water Disposal** and the **Productivity Index** PowerBI reports.

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 the Automated Sensor Calibration development program for semiconductor sensor technologies — delivering **patent–pending advances** and driving cost reductions forecasted to be **in excess of $500M annually**.
· Led cross–functional efforts producing a **21% enhancement** to Mass Spec signal fidelity (SciPy.optimize/Statsmodels), designed A/B Quality Control tests (SciPy.stats/Nolds) for all Mass Spec sensors, and documented proprietary algorithms.
· Invented the Bijective Neural Architecture for density estimation via PyTorch — yielding a **95% increase** in model accuracy.
· Established KPIs and executed A/B simulation tests using synthetic GC–MS data generated with PySwarms, SciPy.optimize, SciPy.stats, and SciPy.integrate — attaining **50% coverage** across chemical detection and monitoring systems.

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   February 2024
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