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, Digital Transformation 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 November 2023 – Present
British Petroleum (BP) *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 the AWS migration efforts for the **Salt Water Disposal** and **Productivity Index** PowerBI reports.

Senior Data Scientist February 2023 – Present
British Petroleum (BP) *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 program — productionalizing the **ML Refracturing Estimator** with Streamlit and yielding a **500% enhancement** to the stakeholders' well prospecting process.

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 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 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, CRISP–DM

Technical Artificial Intelligence, 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