

ELDIN SAHBAZ

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SUMMARY

Accomplished data scientist with three years of progressive professional experience in a multinational company. Proven ability to plan and lead research efforts, design experiments, analyze time series and signals, conduct algorithmic research and development in artificial intelligence and machine learning, and communicate insights to stakeholders. Applied expertise in modeling complex chemical processes via physics and electrical sensor data. Among other accomplishments, successfully improved mass spectrometry signal quality — reducing error by 21%.

PROFESSIONAL EXPERIENCE

Engineer
INFICON

Research & Development

June 2018 - Present
Syracuse, New York

- Delivered updates and status reports to the Senior Director of Development for Intelligent Sensor Solutions (ISS).
- Disseminated statistical ML and signal processing research at the internal global data science research conference.
- Applied data science expertise to mass spectrometry sensors and systems as a part of INFICON's ISS R&D group.
- Lead and planned data science initiatives in a cross-functional environment — completing 10 studies and projects.
- Collaborated with stakeholders to elucidate tangible research objectives from high-level problem statements.
- Conducted basic research documenting baseline predictive models — supporting subsequent product development.
- Counseled internal R&D teams, e.g., facilitated literature searches, discussed approaches, and partook in reviews.
- Coordinated with physical scientists to integrate domain expertise into the experiments and predictive models.
- Interfaced with software engineers to facilitate migrating algorithmic research and findings to existing technologies.
- Audited sensor performance via simulation studies — covering 58% of chemical detection and gas analysis sensors.
- Communicated advised manufacturing process improvements to stakeholders — addressing 70% of sensor records.
- Devised a mass spectrometry A/B model test — quantifying a 56% difference between legacy model test results.
- Modeled and improved mass spectrometry sensor performance and signal quality with a 21% reduction in error.

ACADEMIC APPOINTMENTS

Research Experience for Undergraduates (REU)
Syracuse University ♦ Data Lab

June 2017 - August 2017
Syracuse, New York

- Conducted research under the supervision of Dr. Reza Zafarani (Electrical Engineering and Computer Science).
- Formulated a repeated measures experiment — querying structured and unstructured social media content.
- Modeled expected content attention — minimizing dimensionality while maximizing the cross-validation score.

EDUCATION

Syracuse University
Postgraduate ♦ Mathematics

May 2021

Syracuse University
Master of Science ♦ Computer Science

May 2018

Syracuse University
Bachelor of Science ♦ Computer Science

May 2017
Summa Cum Laude

SKILLS & COMPETENCIES

Programming Languages Python, MATLAB, R, SQL, C++

Certificates Linux Kernel Internals and Development (LFD420)

Software & Tools PyTorch, Scikit-learn, Statsmodels, Pandas, SciPy, NumPy, Matplotlib, Linux, Git

Competency Areas AI, Deep Learning, Machine Learning, Statistical Learning, Linear & Nonlinear Modeling, Regression, Classification, Statistics, Probability, Time Series Analysis, Statistical Signal Processing, Data Analysis, Data Mining, Data Visualization

Soft Skills Communication, Teamwork, Decision Making, Project Planning, Time Management