ELDIN ŠAHBAZ

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SUMMARY

Accomplished data scientist with more than three years of progressive professional experience in a multinational company. Proven ability to plan and lead projects, design experiments, analyze time series and signals, conduct algorithmic research and development in artificial intelligence and machine learning, and communicate insights to stakeholders. Successfully improved mass spectrometry signal quality — reducing error by 21%.

PROFESSIONAL EXPERIENCE

Research & Development Engineer — June 2018 - Present
INFICON — *Syracuse, New York*

- Reported on data science initiatives directly to the Senior Director of Development for Intelligent Sensor Solutions.
- Applied expertise to modeling complex chemical processes via gas chromatography and mass spectrometry data.
- Conducted global presentations and counseled R&D teams — facilitating literature searches and technical reviews.
- Collaborated with stakeholders to elucidate research objectives and directions from high-level problem statements.
- Supported product development efforts — conducting basic research and establishing performance benchmarks.
- Interfaced with software engineers to facilitate migrating algorithmic research and findings to existing technologies.
- Led and planned data science initiatives in a cross-functional environment — completing 10 studies and projects.
- Audited system performance via simulation studies — covering 58% of chemical detectors and gas analyzers.
- Devised a mass spectrometry A/B model test — quantifying a 56% difference between legacy model test results.
- Improved mass spectrometry sensor performance and signal quality with a 21% reduction in estimation error.
- Developing parameter optimization techniques for quadrupole mass filters — projecting ~$500k annual savings.

ACADEMIC APPOINTMENTS

Research Experience for Undergraduates (REU) — June 2017 - August 2017
Syracuse University ◇ Data Lab — *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 — *May 2021*
Non-Matriculated Graduate ◇ Mathematics

Syracuse University — *May 2018*
Master of Science ◇ Computer Science

Syracuse University — *May 2017*
Bachelor of Science ◇ Computer Science — Summa Cum Laude

PROFESSIONAL DEVELOPMENT

Linux Foundation — *December 2019*
Linux Kernel Internals and Development (LFD420)

Linux Foundation — *June 2018*
Embedded Linux Platform Development with Yocto Project (LFD460)

SKILLS & COMPETENCIES

Programming Languages	Python, MATLAB, SQL, C++
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