Sara Sizemore

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A problem-solver with more than five years of data science and machine learning experience, with expertise in data wrangling, ETL pipelines and developing data science workflows. A cross-functional team player looking to help develop data-oriented solutions.

Technical Skills

Programming	MATLAB, Python, SQL, Spark, Git, UNIX, LabView, HTML
Numerical & Analytical Techniques	Time Series Analysis, Machine Learning (Supervised and Unsupervised), Natural Language Processing (NLP), Data Wrangling, Data Visualization, Distributed Computing

Relevant Experience

The Data Incubator, Oakland, CA   **June – August 2019**
Fellow

- Employed data science and statistical techniques including web scraping, NLP, network analysis, and machine learning (clustering, classification, neural networks, PCA, etc)
- Utilized NLP methods to develop metrics to evaluate the effectiveness of children's television programming in language acquisition through analysis of subtitle files (SRT and XML)
- Completed projects in Python (pandas, scikit-learn, tensorflow, networkx, etc), PySpark and SQL by analyzing large open-source datasets (e.g. Stack Overflow, Yelp)

Covalent Metrology, Sunnyvale, CA   **January – June 2019**
Intern

- Acquired and analyzed (CompleteEASE) ellipsometry data of semiconductors
- Created SOPs and documentation to ensure measurement reproducibility and to standardize internal and external reports

Arizona State University, Tempe, AZ   **August 2008 – May 2015**
Graduate Research Associate

- Analyzed 1 million contact formation rate measurements in disordered proteins by implementing PCA and global nonlinear optimization algorithms for parametric minimization and analysis in MATLAB
- Tested and debugged ETL code in MATLAB that use data synchronization and signal processing algorithms to compress datasets to 0.3% original size for analysis
- Developed and automated a laser spectrometer to characterize disordered proteins and wrote polymer models in MATLAB to evaluate the processed and analyzed data from spectrometer
- Modeled the vibrational behavior of enzymes using normal mode analysis in Python
- Optimized the automation and data acquisition of the spectrometer via LabVIEW programs
- Delivered analysis reports and recommendations to cross-functional teams

Graduate Teaching Assistant   **August 2008 – December 2013**

- Prepared and delivered lectures and instructed laboratory physics classes
- Taught students statistical data analysis techniques and how to present results

Education

Arizona State University   **May 2015**
PhD in Physics

Wake Forest University   **May 2008**
BS in Physics, Minor in Mathematics