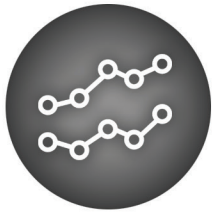


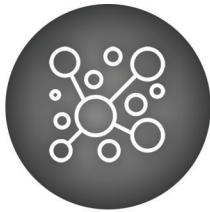


Machine Learning Solutions

Key Applications



TimeSeriesML



Clustering
Optimizer



Language Model
Networks



Simulations
(eg: Group Polarization)



Data Analytics
Workbench



Machine
Vision

Contact

Theresa Cauble

Technical Program Director

Theresa.Cauble@asrcfederal.com

732-544-0888 x 137

Who We Are

ASRC Federal supports a family of companies that provide mission-critical services to civil, defense and intelligence federal agencies. Our companies deliver reliable, cost-efficient services focused on engineering, information technology, infrastructure support, professional and technical solutions.

Our companies employ over 7,000 skilled professionals who embrace our customer-focused, operationally excellent philosophy and bring a "can-do" attitude to resolve complex challenges to adapt to changing environments. Our commitment to quality and continual improvement is underscored by numerous industry certifications including ISO 9001:2008 and CMMI Level 5.

Our Solutions

ASRC Federal's machine learning, advanced analytics and data science suite of tools provide relevant and actionable intelligence to decision makers - solving complex business and mission challenges.

- Consist of customer-driven implementations
- Based on industry best practices and open source frameworks
- Augmented with extensive domain knowledge and advanced machine learning techniques and expertise

Customer-Focused. Operationally Excellent.

Machine Learning Solutions

Mission Applications

TimesSeriesML

- Supervised learning library for classification, forecasting and anomaly detection of time series data.
- **Mission Application:**
 - Useful for any situation that includes supervised learning for time dependent data including: language analysis, telemetry data, signal processing and cyber security analytics.

Clustering Optimization

- Unsupervised learning library used to draw inferences from datasets consisting of input data that has not been human labeled.
- **Mission Application:**
 - Used to identify similarities and latent anomalies in multi-dimensional complex data without well-characterized tagged data sets. These data sets can include mission event and data logs, human behaviors, enterprise financial data, employee time records, and network traffic.

Language Model Networks/Corpus Manager

- Powerful data science tools that augment text analytics resulting in a ranked list of words that best represent the ideas and concepts contained in the corpus.
- **Mission Application:**
 - Unstructured flight mission event log files can be analyzed and process for actionable information, sequencing of events or anomalies, monitoring the health of ground or flight systems, or monitoring the operational status/health of facilities.

Group Polarization Agent-Based Simulation

- N-dimensional scalable simulations for clustering benchmarks, time series data and agent behaviors.
- **Mission Application:**
 - The data generated can be used to build supervised and unsupervised machine learning models. The characterized output data is high dimensional and time dependent - variability and scope of the data generated is effectively infinite.

Data Analytics Workbench

- Powerful data science tools used to develop/test machine models, and interact with static and real-time data streams directly on the deployed cluster.
- **Mission Application:**
 - Easily develop, deploy and test machine models with an interactive data analytics workbench with web based notebook and machine learning engine.

Machine Vision

- Edge-based machine vision capability provide real-time object detection from complex images and scenes.
- **Mission Application:**
 - Used to detect objects in streaming video or static images. By applying advanced data augmentation techniques, trained models can be developed with far less images than typically needed.



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