

# Advanced Analytics

## CAPABILITY OVERVIEW

ASRC Federal's Advanced Analytics provide relevant and actionable intelligence to decision makers and help solve complex business and mission challenges. With machine learning, data analytics and specialized data science tools, we have the solution you need. Whether it's customized dashboards for business intelligence, geospatial analytics, space mission anomaly identification or object-detection models, our team can help implement a purpose-built system that reduces your workload, lowers risk of errors and improves the quality of your intelligence data resulting in timely data driven decisions.

Our Artificial Intelligence/Machine Learning (AI/ML) model development pipeline implements industry best practices and state of the art machine learning techniques to research, acquire data and deploy AI/ML tools as embedded systems to a variety of environments using software or hardware acceleration. We have experience with supervised and unsupervised learning for language analysis, telemetry data, signal processing and cybersecurity analytics.

## PROGRAM SPOTLIGHT

*ASRC Federal's Team Creates Custom Financial Data Management Solution for NESDIS*

When the National Environmental Satellite, Data and Information Service (NESDIS) needed more detailed program financial data, ASRC Federal engineered, developed and deployed a cloud-scale portfolio financial data management solution (FMDS) using Docker containers on Amazon Web Services. FMDS uses a Lambda-based micro services architecture to implement applications top of existing enterprise systems without disruption, while Docker and AWS allow the system to scale based on NESDIS' needs.

## AREAS OF EXPERIENCE

### Unsupervised Learning

Data is everything, but labeling data is time- and labor-intensive. Our unsupervised learning library can draw inferences from remote sensing imagery, mission event and data logs, human behaviors, enterprise financial data, employee time records, network traffic and other datasets without human labeling.

### Natural Language Processing

Our data science tools can augment text analytics to generate ranked lists of words representing ideas and concepts from a corpus, develop and test machine models, or interact with static and real-time data streams directly on a deployed cluster.

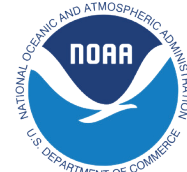
### Synthetic Data Generation

We can generate synthetic data to train and validate your AI/ML models or n-dimensional scalable simulations for clustering benchmarks, time series data and agent behaviors that can generate data with effectively infinite variability and scope.

### Signal Processing

We combine supervised learning for time series data with machine vision to classify high-frequency signals and apply ground-truth observations to remotely sensed imagery for crop yield and production. Our time series analysis can classify, forecast, and detect anomalies while our edge-based machine vision trains models with fewer models and in less time than traditional methods.

## KEY CUSTOMERS



## CONTACT

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## ABOUT US

ASRC Federal's family of companies deliver successful mission outcomes and elevated performance for federal civilian, defense and intelligence agencies while building an enduring enterprise focused on customers, employees, and shareholders.

ASRC Federal offers broad and highly technical expertise in digital operations and IT modernization, software, applications and analytics, engineering solutions, professional services, and infrastructure operations.

As a wholly owned subsidiary of Arctic Slope Regional Corporation, an Alaska Native Corporation, we are inspired by the Iñupiat culture. We embrace **stewardship** and the idea of using every resource effectively; **teamwork** when striving to achieve goals and building a collaborative environment; **integrity** in adhering to high moral principles and professional standards; **high performance** in striving to deliver superior business results and exceptional customer value; and **citizenship** by taking care of our employees, shareholders, and the communities where we work and live.

## MARKETS WE SERVE



Space



Defense & Intel



Civilian



National Security



Health

## HOW TO GET TO US / CONTRACT VEHICLES

- + Our companies' portfolio of GSA schedules, GWACS and agency-specific contract vehicles enables our customers to procure professional services and technology solutions tailored to their requirements, using a streamlined acquisition approach. Our experienced GWAC Program Management Office (PMO) provides collaborative support and leadership throughout the contract lifecycle.
- + To view our full list of contract vehicles, please visit: [www.asrcfederal.com/contract-vehicles](http://www.asrcfederal.com/contract-vehicles)