

CAPABILITIES STATEMENT



Models for decisions that are expensive to get wrong.

Analytica builds predictive models and decision-support systems for government and enterprise teams. Engagements are led and delivered by senior practitioners, with named specialists added when the work requires them.

ANALYTICA DATA SCIENCE SOLUTIONS

3701 S George Mason Dr, Unit 1915N, Falls Church, VA 22041

ESTABLISHED 2015

DR. AOUS ABDU

11

Years in operation

20

Applications live and open

7

Federal & defense tools, no client data

100

Refereed papers by the principal

FEDERAL IDENTIFIERS

SAM.gov registration and NAICS codes.

UNIQUE ENTITY ID

X563TN1QGJF1

Registered since 21 Feb 2023

SAM.GOV

Active through December 30, 2026

Cross-check at sam.gov

CAGE / NCAGE

9JFF2

All Awards

SOCIO-ECONOMIC

Self-certified Small Disadvantaged Business

Virginia • Congressional District VA-08

NAICS CODES • 14 REGISTERED

541519

Other Computer Related Services

PRIMARY

518210

Computing Infrastructure Providers, Data Processing, Web Hosting and Related Services

519290	Web Search Portals and All Other Information Services
541512	Computer Systems Design Services
541513	Computer Facilities Management Services
541611	Administrative Management and General Management Consulting Services
541612	Human Resources Consulting Services
541613	Marketing Consulting Services
541614	Process, Physical Distribution and Logistics Consulting Services
541620	Environmental Consulting Services
541690	Other Scientific and Technical Consulting Services
541715	Research and Development in the Physical, Engineering and Life Sciences
541720	Research and Development in the Social Sciences and Humanities
541990	All Other Professional, Scientific and Technical Services

CORE COMPETENCIES

Four things we do, and the proof for each.

01

Predictive modeling on operational data

Failure, risk and demand forecasting on the tabular, geospatial and sensor data an agency already holds, evaluated on held-out data.

EVIDENCE · Storm damage forecast five days out for a utility; disaster-impact forecasting across critical infrastructure for CISA.

02

Data engineering and integration

Building the data foundation modeling needs — assessment, preparation, and integration across systems, including record linkage and de-duplication when sources share no identifier.

EVIDENCE · Entity resolution across federal and commercial critical-infrastructure records for CISA (fastEM).

03

Explainable AI and decision support

Model output prepared for technical and executive review, with the level of explanation designed around the decision, the audience, and the regulatory context.

EVIDENCE · Operational dashboards with automated alerting, delivered for utility storm response.

04

Training and enablement

Curriculum written for working analysts and decision-makers. Delivered live, to mixed-seniority rooms, with no programming prerequisite on either published course.

EVIDENCE · AI for Decision Support in Defense Operations · R for Data Science.

PAST PERFORMANCE

Work where being wrong was expensive.

CYBERSECURITY AND INFRASTRUCTURE SECURITY AGENCY (CISA), US DEPARTMENT OF HOMELAND SECURITY · SUBCONTRACTOR
FEDERAL GOVERNMENT · HOMELAND SECURITY · CRITICAL INFRASTRUCTURE · 2018 - PRESENT

Predicting how a hurricane cascades through US critical infrastructure (analyticadss.com/work/cisa-infrastructure-of-concern/)

Record linkage at national scale, then a forecast of how a storm moves through what it links — delivered as a platform, as a subcontractor, since 2018.

2018 – continuing, as a subcontractor

SOUTHERN CALIFORNIA EDISON · SUBCONTRACTED DELIVERY
ENERGY · UTILITIES · 2 YEARS

Predicting where a storm will break the grid — five days out (analyticadss.com/work/storm-damage-prediction/)

A two-stage model that forecasts damage by district, then converts that into the crews and materials to pre-stage.

15% reduction in outage times, client-reported

JONES LANG LASALLE (JLL) · CONTRACT ENGAGEMENT
COMMERCIAL REAL ESTATE · HOSPITALITY · 2016, THEN MULTI-YEAR

Matching hotels to buyers, in a market with almost no ratings (analyticadss.com/work/hotel-recommender/)

A recommender built on a ratings matrix that was 99.35% empty — and the bake-off that picked the algorithm.

3 months → instant to produce a buyer shortlist

Some clients are described by sector rather than named. References are available on request.

WHY ANALYTICA

Differentiators.

01

Live public applications

20 applications are live and publicly accessible. 7 are federal data tools built from public records or synthetic scenarios — none uses client data.

02

A decade of validation work in research physics

The founder spent a decade separating faint signals from overwhelming background on NASA's Fermi Gamma-ray Space Telescope and defending the results through peer review. That experience informs Analytica's approach to validation, uncertainty, and technical review.

03

Explainability designed to the decision

The level of explanation is designed around the decision, the audience, and the regulatory context — from feature attribution for an operator to full technical documentation for a review board.

04

Senior-led delivery

The practitioner who scopes an engagement stays with it through delivery.

CONTACT

Start a conversation.

For RFIs, teaming discussions, capability briefings, or a scoping call, use the contact form. Messages go directly to the principal.

DIRECT

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Dr. Aous Abdo, Principal

Contact form (analyticadss.com/contact/?topic=Capability%20briefing)

Past performance → (analyticadss.com/work/)

