



# ELDER RESEARCH

— DATA SCIENCE · AI · MACHINE LEARNING —

## SOLUTIONS:

- Threat Detection
- Topic Discovery
- Continuous Evaluation
- Complex Network Analysis
- Behavioral Analytics
- Streaming Alerts
- Intervention
- Threat Triage

## SELECTED CLIENTS:

- Dept of the Army
- Dept of the Navy
- National Ground Intelligence Center
- National Geospatial-Intelligence Agency
- National Security Agency
- Department of Homeland Security
- Defense Intelligence Agency
- U.S. Customs and Border Protection
- National Center for Medical Intelligence
- Naval Surface Warfare Center
- Defense Finance and Accounting Services

## CONTRACT VEHICLES:

- GSA Schedule 70: GS-35F-0320T
- DUNS: 028211527
- Primary NAICS: 541611

## DEFENSE AND INTELLIGENCE EXPERIENCE

**Elder Research** is the recognized industry leader in the science, practice, and technology of advanced analytics. Founded in 1995 by Dr. John Elder, Elder Research has developed and deployed advanced analytics solutions for the Defense and Intelligence community since 2005. We are experts in data science, text mining, data visualization, scientific software engineering, and technical teaching. Our award-winning threat detection work includes counterintelligence, counterterrorism, biometrics, CBRNE-WMD, and emerging threat detection. Elder Research is a certified small business and has experience as both a prime and subcontractor on multi-year contracts for a number of national security agencies.

## KEYS TO SUCCESS

Achieving success on Defense and Intelligence projects in data science requires broad experience, critical thinking skills, and the proven ability to solve complex problems and effectively communicate results. The collaborative analyses necessary for this work must combine expertise from decision-makers, analysts, and behavioral scientists. We have developed custom software, evaluated analytical tools and workbenches, and trained personnel on software, algorithms, and best practices.



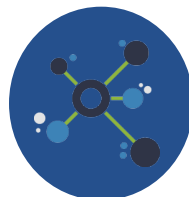
### CRITICAL THINKING

We identify root problems early, plan the analytics, and quickly make progress to create IC/DoD solutions while communicating results early and often.



### EXPERIENCE

We have over a decade of experience operationalizing data and text mining technologies to identify and triage threats in security, counterintelligence, and counterterrorism.



### EXPERTISE

We solve unique challenges, such as analyzing data for actionable intelligence, improving analyst efficiency with a data-driven processes, and integrating data science as a key part of an agency's strategy and mission.

## Contact Us

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# ELDER RESEARCH

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## Office Locations

Charlottesville, VA  
Washington, DC  
Baltimore, MD  
Raleigh, NC  
London, UK

# CAPABILITIES AND SOLUTIONS

Our solutions strengthen the client's team by focusing resources more effectively and helping to establish them as a recognized center of excellence.

## CLOUD & COMPLEX NETWORK ANALYSIS

We have extensive experience modeling complex social, communication, and trading networks. We help find unlawful activity, understand the structure and behavior of adversary organizations, and assess individual threat risk. We work with structured and unstructured data in all forms including cloud, streaming, database, spreadsheet, and text.

## STREAMING & CONTINUOUS EVALUATION

We engineer systems that continuously monitor inputs to discover new threats, reconcile latent reporting, and provide expert discrepancy analysis. We create high-speed, real-time streaming analytics that feed actionable alerts and anomalies to stakeholders.

## TOPIC DISCOVERY

We use cutting edge data science and natural language processing to protect Department of Defense operations, personnel, and facilities from counterintelligence and counterterrorism threats. Discovering previously unknown topics, relationships, patterns, or insights by automating the analysis of large volumes of data dramatically increases analysts' efficiency.

## BEHAVIORAL ANALYTICS

We design analytics that provide meaningful insight into trait and personality characteristics within groups of individuals for deployment in unrelenting operational environments, leveraging clinical domain expertise to build proxy interrogatories that map diagnostic instruments to existing data.

## THREAT DETECTION, TRIAGE & INTERVENTION

We have operational experience using innovative data and text mining technologies to detect national security threats, perform analytics-driven triage, and deploy intervention analytics that enable proactive measures to neutralize concerns before they occur.

## RACK-TO-RANK SOLUTIONS

We provide end-to-end solutions including building an analytics infrastructure, developing intuitive exploratory analytics software, and calculating and analyzing effective rank-based workload prioritization scores.

# DATA PRODUCTS AND ANALYST TOOLS

Elder Research's world-class analytics services are complemented by our powerful custom software solutions. Data products and analyst tools fuse advanced analytics, data manipulation, domain knowledge, and visualization into powerful software solutions that leverage data to provide actionable insights for decision makers, analysts, investigators, and military personnel.

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