![BIGBEAR.AI — DECISION DOMINANCE]

The New Leader In Data Driven Decision Dominance

DATA DRIVEN DECISION DOMINANCE

BigBear.ai is the new leader in decision dominance serving the national defense and intelligence communities. We deliver high-end capabilities across the data and digital spectrum. BigBear.ai provides a comprehensive suite of solutions including artificial intelligence and machine learning, data science, advanced analytics, offensive and defensive cyber, data management, cloud solutions, digital engineering, and systems integration.

Our Capabilities

Government agencies in the United States widely use our capabilities to support some of the nation's most critical national defense missions. Our defense and intelligence customers operate in information environments with unrivaled scale and complexity. They demand the most sophisticated and capable automation, Artificial Intelligence (AI), Machine Learning (ML), and predictive/prescriptive analytics.

The need to make sense of enormous volumes of data is not unique to government agencies. Governments and commercial enterprises alike have spent the last several decades amassing vast volumes of data, in hopes of making the most informed decisions for their organizations. While their data collection efforts have been successful, few enterprises have been able to move beyond descriptive analysis, leaving decision impact forecasts to human sensemaking and intuition. Data has only helped improve decision making retrospectively, delaying its value in improving the execution of strategic objectives. Furthermore, these enterprises do not possess the tools and models to combine their enterprise data seamlessly and flexibly with other data sets to further enhance or refine their insights, nor to deal with the dirtiness and variability of real-world data

BigBear.ai's suite of products (Observe, Orient, and Dominate) enables customers to collect, catalog, curate, conflate, derive, enrich, automate, and visualize data feeds. Our customers can then automatically mine that data to reveal the behaviors and dependencies in operational environments and generate optimal action courses likely to achieve desired outcomes. This automated, data-driven advice informs decision-making and creates decision advantage to outmaneuver competition and external situations.

Smart & Scalable

BigBear.ai's mission is to help customers know and shape their world. We provide our customers with an unrivaled competitive advantage in a world driven by data that is growing exponentially in terms of volume, variety, and velocity through our software products and custom development services. Our products enable decision dominance at the speed of operations by generating anticipatory insights to illuminate and navigate complex, multi-domain, rapidly evolving environments with novel artificial intelligence on unique data collections. We believe that data is a strategic asset, and our expert custom software development empowers customers to use data to make sense of the world in which they operate, understand phenomena impacting their operations, and determine what decisions will achieve their objectives. BigBear.ai's products and expertise provide automation to transform vast troves of unorganized, dirty, and missing data into new insights, actionable plans, and superior decision making.

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Our Services

BigBear.ai's software offerings are the product of our highly technical and specialized workforce performing advanced research and development, rapid solutions development, and analytical support for defense and intelligence customers. The accuracy, agility and scalability of our products are the direct result of us building custom solutions that excel in the most challenging customer environments. Our service-based offerings, especially for Government customers, are critical for two reasons: (1) building intimate customer relationships that allow us to design products that are directly applicable to missions, and (2) providing a testing ground for future technology development that will inform our commercial offerings. These customer engagements allow our engineers and data scientists to explore emerging data sources, data types, next-generation analytical approaches, and advanced AI/ML techniques that will continually improve our products. BigBear.ai has operationalized breakthroughs in machine learning made possible by pushing the envelope in environments with scale and complexity surpassing nearly any commercial applications. By developing and testing novel approaches in these environments, our software is ensured to scale for our commercial customers.

Our Products

BigBear.ai deploys its **Observe, Orient, and Dominate** products to customers throughout the Defense, Intelligence, and commercial markets. The entire suite of products has been designed from the ground-up as a composable, API-driven solution that can easily integrate into customers' environments and leverage new or existing data and analytics. BigBear.ai's products can serve as a customer's primary tool for advanced analytics and can supplement a customer's existing analytics capabilities.

Observe

Collect, normalize, and catalog combination of significant big real-time sources

BigBear.ai collects and processes enormous volumes of data to produce real-time updates to entity "dossiers" tailored to allow customers to know the world in which they operate. Unlike other data providers, Observe abstracts raw data into a form that is immediately understandable for consumers. Rather than large volumes of raw, disparate, multi-source data, Observe provides "data dossiers" that organize observations from all sources that are relevant to a specific entity — like a facility or an event, thus eliminating the need for customers to make sense of data that has little or no context or parse multiple schemas.

Observe dossiers are an aggregation of real-time location data, news media, public communications, public social media posts, internet services, and various other data sources which form a coherent and constantly updating view of entities across the globe. For example, Observe can reveal the existence of a facility, provide the content of posts which reference / include a picture of / are sent near that facility, provide polygons of the facility's shape, web records referencing that facility's address, and other more detailed characteristics.

This ever-increasing data collection can be used to drive change alerts in real-time and queried for historical analysis. APIs make it easy to feed Observe data into downstream use cases and technologies. Additionally, our composable architecture can easily integrate new data sources or a customer's internal, proprietary data into Observe for a truly customized view of a customer's operating environment.

Orient

"Low Code" AI generates insights and predictions

Orient helps customers read between the lines with AI and ML workflows at a massive scale to keep pace with real-world missions. It uses low-code, composable, distributed, and event-driven predictive analytics to uncover hidden items in raw data (for example, extracting objects from images) and run analyses to learn and expose what data can tell customers about their environment. Orient provides cutting edge analytics steps including computer vision, natural language processing, conflation, forecasting, and optimization which can be easily configured into custom workflows to derive specific customer insights at scale. Tensor completion, one novel methodology powering BigBear.ai's analytics, goes well beyond traditional big data analytics and is specifically designed to make sense of disparate data sets that are periodically dirty, erroneous, or full of gaps. For example, Defense customers have applied Orient to problem sets where data sources are often haphazard and achieved three times the accuracy of traditional machine learning approaches. Orient's APIs allow the customer to plug in their own analytics and data, thus leveraging any prior investments a customer has made.

Dominate

Visual interactions powering informed decisions in complex situations

Dominate is BigBear.ai's decision support solution that goes the extra mile converting data into action. Dominate starts by visualizing all the data it is pointed at, allowing users to understand their current environment through descriptive analytics. Dominate then uses auto-ML with tensor completion to create multi-domain models of customer environments, automatically learning all of the relationships and behaviors — effectively the "chains of dominoes" — which are in effect. These models allow Dominate to forecast future outcomes, identify outcome likelihood, and determine the impacts of candidate decisions or "what-if" scenarios. Customers can easily express potential courses of action or goals through interactive visualizations (like grabbing the future forecast line on a chart and moving it up or down) and Dominate quickly reveals the impacts of and roadmaps to those futures, enabling proactive optimization towards objectives. Dominate provides multiple levels of explanations for predictions to ensure transparency and build trust. These explanations reveal discovered environmental behaviors, often exposing non-obvious insights to users which can help them innovate. Dominate's data driven, automated analyses allow it to be pointed at multiple customer problems to quickly produce actionable, scenario-specific advice on how to outmaneuver competitors and events, articulating precisely why and how various courses of actions are expected to yield the desired results. Dominate provides certainty in shaping conditions to achieve customer objectives, even in the most complex multi-domain environments.