



BrightWorld Labs

WHERE DATA MEETS INTELLIGENCE

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BrightWorld Labs is a principal-led consultancy specializing in the architecture of large-scale, sovereign AI solutions and spatial-temporal deep learning. With over 25 years of interdisciplinary experience bridging academic research, federal/defense applications, and enterprise consulting, we help organizations overcome critical resource constraints to deploy secure, predictive systems. We partner with prime contractors, government agencies, and global enterprises to translate complex data science into operational success.

DUNS: 119257115
UEI: YBC3LB2CFN67
CAGE: 9CY26

NAICS:
541370 – Surveying and Mapping (except Geophysical) Services
541511 – Custom Computer Programming Services
541512 – Computer Systems Design Services
541611 – Administrative Management and General Management Consulting Services
541620 – Environmental Consulting Services
541690 – Other Scientific and Technical Consulting Services
541715 – Research and Development in the Physical, Engineering, and Life Sciences (except Nanotech and Biotech)

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CAPABILITY STATEMENT

Core Capabilities

- **Fractional AI Leadership & Strategy**
 - Directing enterprise AI transitions, data governance, and high-performance computing infrastructure.
 - Mentoring data teams and generating synthetic datasets for rigorous, secure AI model evaluation.
- **Geospatial AI & Earth Intelligence**
 - Architecting continental-scale AI prediction and simulation systems integrating Earth observation and surveillance data.
 - Designing anomaly detection and forecasting pipelines for proactive global execution and decision-making.
- **Spatiotemporal AI & Simulation**
 - Deploying deep learning for multi-modal Earth observation to automate precision environmental monitoring.
 - Leveraging NLP to extract implicit geographic movement and situational intelligence from unstructured text.
- **Sovereign AI & Production Infrastructure**
 - Building proprietary ML pipelines ensuring strict data sovereignty, automated retraining, and ethical AI.
 - Translating complex spatial algorithms into production-ready cloud APIs (AWS, FastAPI, PostGIS, ReactJS).

Differentiators & Qualifications

- **Academic & Federal Recognition:** Ph.D. in Informatics (Penn State) with a focus on Artificial Intelligence, supported by the NASA Space Grant Graduate Fellowship and USGIF Doctoral Scholarship.
- **Interdisciplinary Leadership:** Certified Professional in Talent Development (CPTD) with a 25-year career translating 14 years of advanced academic research into operational global enterprise consulting.

Selected Past Performance & Strategic Consulting

- **World Health Organization (WHO):** Architected an AI-based early-warning system for continental-scale disease prediction across Africa, integrating Earth observation and surveillance data.
- **Environment Agency Abu Dhabi & Kuwait Oil Company:** Led AI architecture for national infrastructure, deploying anomaly-detection pipelines and SAR-based deep learning for automated environmental monitoring.
- **Gulf Bank of Kuwait:** Advised executive teams on enterprise AI strategy and developed complex synthetic datasets to evaluate generative AI capabilities.
- **Esri (U.S. Federal & Local Government):** Designed and integrated customized geospatial intelligence solutions directly for U.S. defense, federal, and public safety agencies.