sudo-rndm.ai

Mission-Driven AI R&D & Consulting

$ sudo rndm --capability-statement

Company overview

From peer-reviewed methods to fielded systems.

sudo-rndm.ai (SUDO RNDM AI LLC) is a veteran-owned small business delivering AI/ML research, development, and consulting for government agencies, defense partners, research institutions, healthcare partners, and small-to-mid-sized businesses. We specialize in data science, intelligent systems engineering, and advanced analytics that help organizations innovate, operate efficiently, and make confident, data-informed decisions — with calibrated, explainable systems that hold up in high-stakes environments.

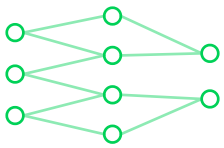


fig. 01 — model, prototype → fielded

Core competencies

01	**AI/ML Research & Engineering** explainable ai · edge ml · llm pipelines	End-to-end model development, from prototype to fielded system — built for real-world operational conditions.
02	**Data Science & Decision Analytics** bayesian methods · forecasting · optimization	Bayesian inference, forecasting, and statistical modeling for mission planning and operational decisions.
03	**Multimodal Systems Integration** sensor fusion · remote sensing · computer vision	Image, video, sensor, text, and structured-data pipelines with cross-domain fusion for remote sensing and analytics.
04	**Federated & Privacy-Preserving Learning** federated learning · privacy by design · edge deployment	Secure, decentralized learning frameworks for multi-site data environments where the data can't move.
05	**Proposal and R&D Support** sbir / sttr · white papers · prototyping	SBIR/STTR teaming, white papers, technical writing, and rapid prototyping for innovation programs.
06	**Education, Training & Outreach** workshops · curricula · upskilling	Tailored AI/ML training and upskilling for government, industry, and small-business teams.

Key differentiators

Veteran-owned, impact-oriented
Leadership with defense, research, and industry experience, bringing mission-focused discipline to government, enterprise, and small-business work.

Research-driven, practically deployed
Delivery across AFRL, AFOSR, AFWERX, and commercial partners — translating advanced AI/ML research into reliable real-world applications.

Bridging academia & industry
Deep academic expertise combined with hands-on engineering, so organizations adopt emerging technology safely and strategically.

Ethical, transparent AI
Explainable, trustworthy, well-calibrated systems that support human decisions rather than replace them.

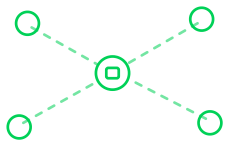


fig. 04 — updates move, data doesn't

Featured R&D

Boreas Navigator polar navigation / ● in development	Calibrated, multi-modal deep learning for sea-ice characterization, short-horizon forecasting, and uncertainty-aware polar route planning.
Bronte Nowcaster lightning nowcasting / ● in development	Calibrated, sub-hour deep learning that predicts lightning strike probability at each point on an airfield or launch range — refreshed every 5 minutes, out to 30.
Themis military justice / ● in development	Privilege-aware evidence synthesis and case preparation for military justice — bounded, auditable, and human-in-the-loop, with a formal confidence guarantee on every output.



fig. 05 — white paper → funded program

Past performance & experience highlights

- **AFRL, AFOSR, and AFWERX research** on AI/ML, multimodal fusion, and uncertainty quantification for aerospace and defense programs.
- **Federated learning pipelines** for physiological, sensor, and enterprise datasets, supporting government labs and commercial teams needing secure, distributed training.
- **Computer-vision models** for safety, inspection, and defect detection across aerospace/defense programs and commercial inspection analytics.
- **LLM-based pipelines** (BERT, GPT, T5 variants) for operational knowledge extraction, HR analytics, and customer-feedback mining.
- **Explainable AI architectures** for personnel management, decision support, and operational planning, improving model transparency across sectors.
- **AI/ML education and upskilling programs** for DoD units and civilian organizations, covering machine learning, Bayesian analytics, and applied decision science.

VETERAN-OWNED SMALL BUSINESS

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