

# IG LABS

*Our 8,000 square foot cutting-edge Artificial Intelligence Innovation Lab encompasses a Rapid Prototyping Fabrication Lab, as well as Cyber-Physical technologies which enable new approaches to old problems. IG Labs™ provides extensive resources and expertise in a hands-on environment to transform our customers and partners missions into the next-generation influencers of technological change. IG Labs primarily focuses on two pillars—Cyber and Artificial Intelligence. The innovation focuses across five areas of influence and forge us to the edge: AI/Deep Learning, Advanced Analytics/Data Science, Generative AI (GAI) and Large Language Models (LLM), Rapid Prototyping & Fabrication, Defensive Cyber Operations. IG Labs focuses on innovation through vehicles such as Other Transactions, Small Business Innovation Research (SBIR) and Small Business Technical Transfer Research (STTR).*



## IG LABS SERVICES

### » [AI/DEEP LEARNING](#)

Applied AI solutions that produce real mission outcomes. Full-lifecycle AI development from data gathering and validation through model training, testing, and deployment in real-world missions, all bolstered by our NVIDIA Deep Learning Environment and on-prem DGX A100.

### » [DATA SCIENCE/ADVANCED ANALYTICS](#)

Innovative low-code/no-code solutions to discover big data's previously unrealized value. Analytic modeling, scripting, and programming to characterize and exploit large datasets, regardless of their organization, cleanliness, or structure.

### » [GENERATIVE AI & LARGE LANGUAGE MODELS](#)

Cognitive support solutions designed to empower operators with AI-enhanced decision-making abilities. Scalable, trustworthy platforms that bridge the gap between cyber operators and GAI in fast-paced mission environments.

### » [RAPID PROTOTYPING & FABRICATION](#)

Custom hardware solutions, flyaway kits, and cyber-physical tools tailored to suit specific customer needs. State-of-the-art Fabrication Lab, efficient Agile-based development processes, and hands-on technical guidance from technical experts with firsthand mission experience.

### » [DEFENSIVE CYBER SOLUTIONS](#)

Advanced tactics, techniques, and procedures that enhance open-source threat analysis and the development of defensive techniques in response to ever-evolving adversarial threats.

Designated a Cyber AI/ML Center of Excellence, IntelliGenesis' IG Labs Division creates advanced artificial intelligence solutions while driving R&D, and rapid prototyping of entirely new capabilities that demonstrate "The Art of the Possible." Developers working in our 8K sqft state-of-the-art facility have the tools and freedom to create inspired applications and hardware solutions that solve complex problems and advance the mission in new ways.

- DL Pod (DGX A100, 400 TB Storage array, and 400 GB/s network infrastructure) – On-prem Deep learning and development Environment
- Virtual Environments – Realistic system/network environments for data generation, cyber exercises and training
- Generative AI – Conversational AI capabilities delivering secured, trusted and focused decision-making support
- Microelectronics Fabrication – Design and prototyping resources for custom hardware and flyaway kits
- Specialized Training Staff – Mission-experienced experts teaching accredited courses in Applied AI/ML/DL, Python, Industrial Control Systems (ICS/SCADA), Threat Hunting, and Malware Analysis



## IG LABS PRODUCTS

**CYBERSPAN**<sup>®</sup>

**M.A.C.E.**

**KRAKENAI**<sup>™</sup>

**NeuralNexus**<sup>™</sup>

### » CYBERSPAN<sup>®</sup> - AI-ENABLED ANOMALY DETECTION AT THE BOUNDARY

Protection against malicious and anomalous activity at network boundaries. Supervised and Unsupervised AI Learning Models provide fundamental cyber protection and reduce the cybersecurity burden for small-to-medium sized Defense Industrial Base (DIB) companies.

### » MODULAR ADVANCED CYBER ENABLEMENT (M.A.C.E.) SYSTEM

Portable, modular OT and IT cyber security training platform that integrates real-world protocols and scenarios. Combining cyber-physical controls and characteristics, M.A.C.E. allows users to witness how changes made in the cyber environment impact devices in the physical environment, across multiple training scenarios: runway lighting systems, traffic light systems, power grids, and environmental controls.

### » KRAKENAI<sup>™</sup>

Generative AI, Full Stack (FS), End to Edge solution tailorable to any application/market. In its current iteration, KrakenAI is a Cognitive-based tool, specifically targeting the cybersecurity marketplace to enhance analyst capabilities through a conversational and summarization-optimized Large Language Model.

### » NEURALNEXUS<sup>™</sup> - MACHINE LEARNING AS A SERVICE (MLaaS)

Customizable, AI/ML-enabled tools, workflows, and dashboards that make any sensor smarter. Data-agnostic AI integration supporting real-time threat detection, active prediction capabilities, behavior analysis, data management, vulnerability assessment, and more.