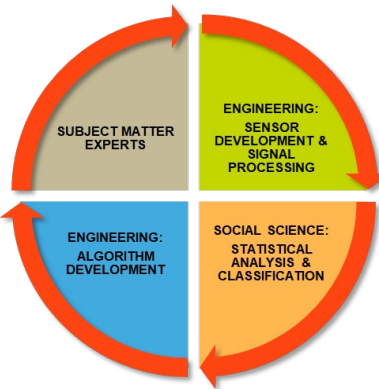**ReSCIND**

DRAPER®

Draper Overview

- Independent, not-for-profit, research & development focus
- Mission: Deliver advanced technology solutions in the national interest
  - High-impact, end-to-end technology solutions for DoD & IC
  - Transition from early-stage R&D through fieldable systems (turning technologies into capabilities)
  - Combining the innovation of a lab, the rigor of a major prime, & the speed of a startup

SUBJECT MATTER EXPERTS

ENGINEERING: SENSOR DEVELOPMENT & SIGNAL PROCESSING

ENGINEERING: ALGORITHM DEVELOPMENT

SOCIAL SCIENCE: STATISTICAL ANALYSIS & CLASSIFICATION

Research & Development Areas

Inertial Measurement

Guidance, Navigation & Control

Physical Sensing & Timing

High Assurance Systems

Design for Harsh Environments

Complex System Miniaturization

Communications & RF Systems

Cyber-Physical Systems Security

Human-System Engineering

Data Analytics & Machine Learning

Autonomy & Perception Software

Electro-mechanical Systems

Organ on a Chip

Bioprocessing & Synthetic Biology

Draper Relevant Strengths and Experience

- Experiment design & analysis
- ML/AI
  - Automated adaptation of human-computer interface
  - Surveillance capabilities for decoding human physiology, behavior, & intent
  - Behavioral fingerprinting: targeting, measuring, learning, & using behavior in the digital ocean
- Cyber
  - Cyber data collection; user interactions, content consumption
  - Anomaly detection
  - Data hacking at the physical edge; automated cyber disruption
- Established track record with multiple government sponsors: performer on IARPA's ACE, FELIX programs; performer on DARPA's WASH, MUSE, DIGET, XDATA programs and DARPA SBIRs (Pathfinder/Forager); performer on U.S. Army's MASTR-E program, and many other DoD & IC efforts
- Conducted HSR in DoD & IC context, including field studies

Potential Teaming Needs

- **Computational cognitive modeling** (e.g., cyber-psychologist, computational psychologist, sociologist, anthropologist)
- **Quantitative models of decision-making**
- **Red Teamers, Ethical Hackers, White Hats, Penetration testers**
- **Cyber testbed**

Contact

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