

Capabilities	Priority
<ul style="list-style-type: none"> • Ability to maximize information extraction from limited data 	High
<ul style="list-style-type: none"> • Ability to create statistically-relevant synthetic datasets for large-scale (potentially security-sensitive) applications 	High
<ul style="list-style-type: none"> • Ability to quantify (information-content, cost) the value of diversification of sensor types 	Medium
<ul style="list-style-type: none"> • Ability to quantify trade-offs (accuracy, computational cost) related to development of models at different levels of abstraction/scale 	Medium
<ul style="list-style-type: none"> • Ability to quantify the significance of results (estimate uncertainty) with varying levels of data pedigree after processing through complex models 	Medium
<ul style="list-style-type: none"> • Ability to quantify accuracy of data re-alignment more generally 	Low
<ul style="list-style-type: none"> • Shared language / approach for explicitly representing data pedigree 	Low
<ul style="list-style-type: none"> • Improved methodologies for integrating/representing domain knowledge within data-driven models (e.g., machine learning) 	High
<ul style="list-style-type: none"> • Methodology for demonstrating/validating 'credibility' of data-trained or black-box models 	High
<ul style="list-style-type: none"> • Ability to propagate improvements in data through the system (i.e., not one-time calibration - needs to be adaptable) 	High
Priority Goals	Priority
<ul style="list-style-type: none"> • Public (open-access), large-scale, realistic, datasets (ground truth) to underpin wider data access and drive innovation 	High
<ul style="list-style-type: none"> • Established standards for testing algorithm effectiveness 	Medium
<ul style="list-style-type: none"> • System for simulating cost-effectiveness of integrating multiple modalities 	Low