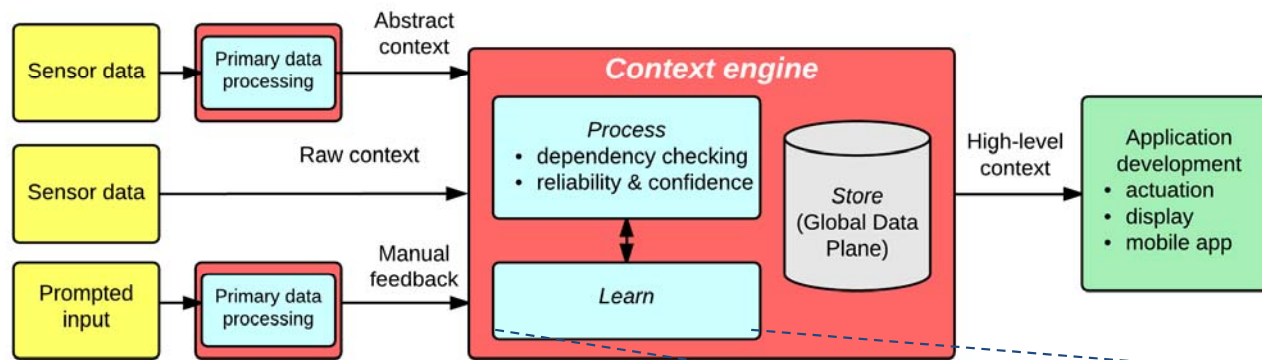




# Ontology-Driven Context Engine

Christine Chan, Jagannathan Venkatesh, Tajana Simunic Rosing. *UC San Diego*

- Context is ubiquitous but unregulated
- Transform *low-level sensor data* to *high-level knowledge*



- Ontology from Context Modeling Language (CML)
  - Physical/virtual entities (**objects**) have **roles** relative to **data**: producer or consumer
- Optimization of context scenarios
  - Lowest-cost path
  - Minimal data storage for application needs
- Adaptation to ever-changing context
  - Machine learning of context data
  - Missing data/sources
  - Adding additional sensors
- Integration with the KVStore/GDP



Machine learning on a Bayesian network in the engine

