



University of Maryland, Baltimore County (**UMBC**)

Lead Investigator:

Frank Ferraro • Asst. Professor • Computer Science

Team Members:

Karuna Joshi • Asst. Professor • Information Systems

Tim Finin • Professor • Computer Science

Tim Oates • Professor • Computer Science

Anupam Joshi • Professor & Chair • Computer Science

UMBC

AN HONORS
UNIVERSITY
IN MARYLAND

Language & knowledge understanding

Structured semantic representations
Information extraction from text

Knowledge Representation and Reasoning

Joint vision & language processing

Learning with low-to-no supervision

Research Areas



eBiquity lab



Knowledge, Analytics,
Cognitive and Cloud lab

CORAL

Cognition, Robotics, and
Learning lab

Qualifications & Capabilities

Expertise with the full range of **modern machine learning** (statistical & neural) and **KRR** technologies and their application to **language understanding**, **information extraction**, **content personalization**, and **image understanding**.

Building scalable IE systems

general & large-scale domains (e.g., TAC, Wikipedia)

specialized domains (e.g., cybersecurity)

Extracting, reasoning over & explaining background knowledge to infer information of interest

Design & use of unsupervised semantic language models in IE systems

Developing systems to ground language meaning in visual inputs

Integrating IE and IR systems

Designing, extending, & using ontologies

Creating, using & grounding knowledge graphs of background knowledge, (e.g., Freebase, DBpedia)

Developing and using scalable knowledge representation and reasoning systems

Looking for Collaborators for

information retrieval

multilingual language understanding/translation

human computer interaction

Contact Information

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