MULTI-MODEL COMPUTATIONAL ARGUMENTATION ENGINE FOR HUMAN-AI COLLABORATION IN SEQUENTIAL DECISION MAKING TASKS

PROJECT DESCRIPTION: This project is aiming to develop an AI prototype tool that will aid in training and decision making tasks by mining text and other data to construct arguments (pros and cons) based on propositions provided through natural language by a user. Applicants should expect to engage in literature reviews on relevant topic areas and apply their skills in developing novel natural language processing models and leveraging other state of the art machine learning models to assist in building a prototype computational argumentation software tool.

ACADEMIC LEVEL: Bachelors, Masters, PhD

DISCIPLINE NEEDED:
- Computer Science
- Cognitive Science
- Computer Engineering
- Mathematics

RESEARCH LOCATION: Wright-Patterson AFB Dayton, OH

RESEARCH ADVISER: Sean Kennedy, MS
Computer Science, University of Cincinnati, 2019

Sean Kennedy is a Computer Scientist in the Airman Systems Directorate. Sean is interested in applying machine learning methods in the domains of human-AI collaboration and improving the robustness and generalizability of AI systems. Currently, Sean is leading the development of AI systems for human-AI collaborative mission planning and developing measures for assessing robustness and security of machine learning models. Photo courtesy the U.S. Air Force Research Laboratory.