

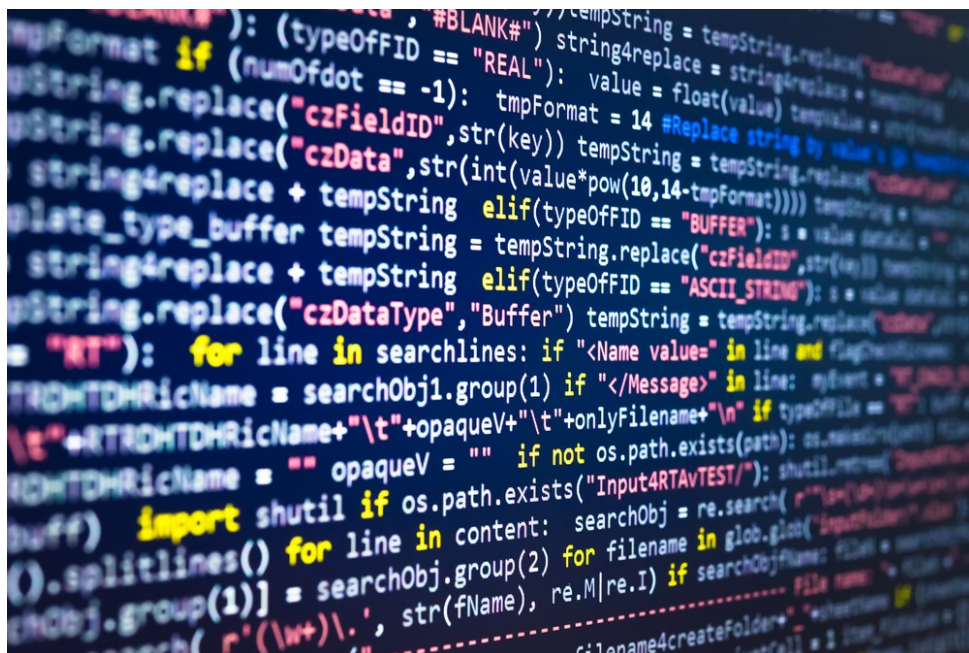


Friday, July 14, 2017

## U.S. Defense Department Funding \$1.6 Million Algorithm Study At Texas A&M

July 10, 2017

3



By Richard Nira, Texas A&amp;M University College of Architecture

In the digital age, people rely more and more on advice — driving directions, weather reports, dining suggestions and fitness tips — generated by a computational process, or algorithm.

Researchers at Texas A&M are examining these computations in an effort to explain this reasoning process, why algorithms reach the conclusions they do, as part of a four-year, \$1.6 million project funded by the Defense Advanced Research Projects Agency (DARPA), a division of the U.S. Department of Defense that explores new technologies.

An algorithm performs data processing and automated reasoning by referencing large datasets in a wide range of applications, improving its performance as new data is received — a process called “machine learning.”

Many health care systems, for example, are using evidence-based, machine-learning algorithms to make recommendations regarding patient diagnosis, treatment, chronic disease management, and more.

To have confidence in an algorithm's recommendations, end users — in this case, physicians and patients, need to know why an algorithm is advising them to take a particular action, said Eric Ragan, assistant professor of visualization and co-principal investigator for the study.