

## JOSEPH KUSHNER HEBREW ACADEMY RAE KUSHNER YESHIVA HIGH SCHOOL

## RKYHS STEM PROGRAM INTRODUCES ARTIFICIAL INTELLIGENCE/MACHINE LEARNING PROGRAM WITH TELEGRID CYBER SECURITY FIRM AND PRINCETON UNIVERSITY

The Rae Kushner Yeshiva High School (RKYHS) launched an exciting new Artificial Intelligence (AI)/ Machine Learning program in January 2018 for the second half of the school year in conjunction with Princeton University and TELEGRID, a New Jersey-based cyber-security firm.

Artificial Intelligence/Machine Learning is an emerging field in Computer Science that focuses on "teaching" computers how to learn to solve problems without coding them for a particular set of tasks.

This advanced RKYHS program in Computer Science comprises a unique cross-grade course approach involving students across the grade spectrum from 9th -12th grade. This maximizes the depth of the program and creates a ramp for students to advance through the program on a multi-year basis and carry out research projects over a number of years.

The course involves both academic theory and hands-on collaboration in a real, ongoing AI/Machine Learning research project being executed by TELEGRID Technologies, Inc., a New Jersey-based cyber-security firm, working with researchers at Princeton University.

The project involves developing and directing a computer algorithm (program) to "learn" and identify characteristics of an individual user based on collection of and analysis of non-personal identifier sensor data in order to confirm user identity in real time.

Using this hands-on approach and collaboration with TELEGRID, the program both teaches students methods and theory in AI/Machine Learning and fosters mentoring relationships between students and industry leaders.

The program also underscores the RKYHS philosophy of "Learning Science by Doing Science" by putting students in a position to work on real world problems and perform real research at the very forefront

of the field.