FACULTY MENTOR
Granholm, Eric

PROJECT TITLE
Automated psychotherapy fidelity rating

PROJECT DESCRIPTION
Many evidence-based psychotherapy interventions have been developed and recommended for people with mental illness, but these interventions are not available to the majority of patients. Many more therapists who are trained to deliver high-fidelity psychotherapy are needed. To train mental health providers to deliver evidence-based psychotherapy interventions, it is essential to rate the fidelity of their psychotherapy sessions and provide feedback about adherence to treatment manuals and standards. Also, millions of psychotherapy sessions are delivered each year with little or no quality assurance about the fidelity of these sessions. Rating fidelity requires many expensive hours of experts listening to session recordings and rating fidelity on standardized scales. By using automated speech recognition, natural language processing, machine learning and neural network modeling, automated fidelity rating of psychotherapy sessions is possible. This could have enormous public health impact by dramatically increasing the availability and quality of evidence-based psychotherapy treatments for people with mental illness.

Psychiatry Faculty Mentor: Eric Granholm; ECE Faculty Mentor Dr. Hari Garudadri

INTERNS NEEDED
4 BS or MS students

PREREQUISITES
Prefer knowledge and interest in ANY of the following: Automated speech recognition, natural language processing, machine learning and neural network modeling.