

Colloquium Series



The [Department of Mathematics at Knox College](#) is proud to welcome Knox College student

Anastasiia Ganshina

Candidate for a major in Data Science.

The title of her talk is

Surgical Mask Detection

In 2020, the world was shaken by COVID-19, the pandemic that continues to affect our lives. Due to mutations and constant challenges humanity is facing, this illness will stay in our day-to-day lives for some time. In order to limit the spread of the disease and keep each other safe, CDC primary recommendation is to wear masks in public places or when closely interacting with others. However, there is no good way to monitor whether these rules are followed and people are protected. Thus, the creation of the system of autonomous mask detection might be helpful to make sure people are keeping each other safe and healthy.

The autonomous system described above can be simply implemented by using Machine Learning and, more specifically, the Computer Vision component of the field. Computer Vision is a part of the Machine Learning field that deals with images and videos, and bases the predictions from feature extraction of patterns detected in images or frames. Thus, to build the mask detection model, the images of peoples' faces with and without masks are needed.

This research project creates such a system using freely available materials, including Python and Keras. The accuracy of this model is explored and explained.

Where: SMC A-203

When: Tuesday, March 1, 2022
4:00 – 5:00 pm

Before the presentation, at 3:45 pm, please join us for refreshments in the Mathematics/Computer Science Conference Room (SMC E-215).