

James Edwards
ICS Senior Thesis Proposal

My preferred thesis topic is in the developing area of deep learning. Dr. Galluzzi at RHIT has requested my assistance to apply deep learning to a research problem with which she has significant experience, namely the recognition of proper hand-washing technique. I find this concept interesting and thus would like to investigate it for my thesis.

During my research I hope to improve my own understanding of how deep learning and machine learning actually work. I have a high fascination with these areas, so although I am a relative beginner to these topics, I hope to dive deep into the concepts and achieve a clear understanding about them. Since the field of deep learning is definitely an important field that is sure to only become more important in the future, I hope to be able to contribute by studying in this area.

At this point we want to start by discretely classifying hand motion into hand hygiene and not hand hygiene. Then I can investigate and add more and better modeling and classification and work up to potentially even predicting the areas of the hands covered in a hand washing session.

Dr. Galluzzi and I have spoken about this topic and she will be my advisor at RHIT. As an ICS student I am also supposed to work with a professor at Hochschule Ulm.