

Computer Vision MS: project proposal

February 2022

Title

Understanding the dynamics of human interactions

Abstract

In recent years we have observed an increasing interest to develop computer vision systems that can understand human interactions. Most of these approaches attempt to recognize a reduced set of categories, such as specific actions that involve interaction (e.g. hugging, hand shaking, or talking). However, understanding social interactions in detail means understanding a large collection of social signals and social dynamics, far beyond the recognition of a few high-level categories. A few recent works are exploring in more detail the automatic understanding of social interactions, but we are still far from having machines that understand well how humans interact among them. In particular, one of the challenges is understanding in detail the rich non-verbal communication and how this non-verbal communication supports the verbal communication. In this project we will work on developing explainable deep learning models to approach fine-grain classification tasks related to the understanding of the dynamics of dyadic interactions.

Academic Supervisor

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