

## Knowledge Distillation for deep learning

Deep learning models can solve complex tasks such as detection and recognition. However, deploying such models in resource-constrained edge devices is challenging because of their complex architecture, thus, a high number of parameters.

Knowledge distillation is a novel paradigm that aims to transfer knowledge from a teacher network to a student network that presents fewer parameters. With this approach, it is possible to deploy complex deep learning models in edge devices with a negligible drop in accuracy.

This thesis aims to investigate and implement knowledge distillation solutions, test them with state-of-the-art datasets such as ImageNet or Visual Wake Words, and deploy the resulting student model in edge devices.

