

The title of my talk is: Foundation Vision Models.

The abstract is as follows:

Foundation models are emerging research topics in artificial intelligence nowadays, which have advanced the state-of-the-arts in various computer vision applications such as visual surveillance, autonomous driving, and intelligent devices. This talk will review the recent research progress of foundation vision models from the perspectives of model architecture and learning paradigm, and introduce several new methods proposed by the Intelligent Vision Group at the Department of Automation, Tsinghua University, including dynamic sparse models, global filtering models, spherical fractal models, and geometry-aware generation models, and their applications in various vision tasks such as object detection and segmentation, image and video retrieval, and 3D reconstruction and recognition.