Tailai Song

Tailai Song obtained the M.Sc. in ICT for Smart Societies at Politecnico di Torino in 2022. Currently, he is a Ph.D. student in the Department of Electronics and Telecommunications (DET) at Politecnico di Torino (PoliTO), Italy, and also a member of the SmartData@Polito research centre and the Telecommunication Networks Group (TNG). His research focuses on machine learning techniques applied to real-time communications to improve Quality of Experience (QoE) and the objective of full-stack observability through end-to-end telemetry.

Modelling Concurrent RTP Flows Through Length-free Transformer with Localized Attention

ABSTRACT

In recent years, the modelling of Real-time Transport Protocol (RTP)-based real-time communications (RTC) applications, e.g., video-teleconferencing, has emerged as a pivotal endeavour. The potent Transformer model could be of use on the finest granularity. However, the vanilla Transformer is limited to bounded input length. In this talk we will introduce a novel length-free Transformer, with a customized attention mechanism to confine packet interactions solely to those localized within the same flow. This empowers us to handle unrestricted amount of RTP flows in a single shot, without undue resource depletion.

Season 4