计算机学科前沿论坛之二

报告题目：Deep Spectral Kernel Networks

报告人：薛晖

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报告摘要：Since the release of ChatGPT, generative AI has caught the attention of many individuals, corporations and governments. It is a very disruptive technology that is already changing how people learn and work with producing high quality content, specifically text, image and audio, which often exhibit non-stationary characteristics. Non-stationary and non-monotonic spectral kernels effectively break the local limitation and provide a new idea for in-depth analysis, understanding and prediction of dynamic non-stationary data. In this talk, we will systematically present our latest research works about the non-stationary spectral kernel: 1) the framework of deep spectral kernel networks (DSKN); 2) how to solve the optimization dilemma of DSKN; 3) how to improve the representation capability of DSKN; 4) a solid application method for time series domain adaptation based on DSKN. Finally, we will discuss profound thinking on further development of DSKN in generative AI.

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