智源学者成果展示——智能信息检索与挖掘

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面向搜索和推荐的深度语义匹配

Deep Learning for Matching in Search and Recommendation

成果简介：

建模用户查询与网页内容的相关度是搜索引擎的重要的任务，计算商品是否匹配用户的喜好也是推荐系统成功的关键，完成上述任务的核心在于计算查询（或用户）与网页（或商品）在语义层面的匹配程度。近年来，深度学习模型被成功应用于语义匹配任务，成为搜索引擎和推荐系统提升用户体验的有效手段。深度学习模型取得成功的一个关键因素在于其强大的表达能力和匹配模式的学习能力。本论文从语义匹配的视角对当前深度搜索与推荐模型进行了系统、详尽地调研，将当前主流的匹配模型分类为基于表征学习的方法和基于匹配函数学习的方法，指出了搜索中的查询－文档匹配与推荐中的用户－商品匹配所共同面临的核心挑战以及解决方案。将搜索与推荐置于统一的匹配视角下进行分析和比较，可帮助研究者们洞察已有的模型和方法，也可以增进两个领域的了解，通过相互借鉴提出新的匹配技术。虽然本论文以搜索和推荐为例介绍了深度语义匹配模型，但类似的问题和解决方案也适用于其它领域，包括且不限于：自然语言推理、文本转述、社区问答、检索式对话等。

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