Neural Approaches to Conversational AI

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Video Conference in Golden Gate Room, 1195 Bordeaux Dr, Sunnyvale, CA 94089

Video Conference in Beijing (Room to be determined)

Abstract: This is a shortened and updated version of our recent tutorial presented at ACL/SIGIR 2018. This talk surveys neural approaches to conversational AI that have been developed in the last few years. We group conversational systems into three categories: (1) question answering agents, (2) task-oriented dialogue agents, and (3) chatbots. For each category, we present a review of state-of-the-art neural approaches, draw the connection between them and traditional approaches, and discuss the progress that has been made and challenges still being faced, using specific systems and models as case studies. Here is the link to the paper: https://arxiv.org/abs/1809.08267

Bio: Jianfeng Gao is Partner Research Manager at Microsoft AI and Research, Redmond. He leads the development of AI systems for machine reading comprehension (MRC), question answering (QA), social bots, goal-oriented dialogue, and business applications. From 2014 to 2017, he was Partner Research Manager at Deep Learning Technology Center at Microsoft Research, Redmond, where he was leading the research on deep learning for text and image processing. From 2006 to 2014, he was Principal Researcher at Natural Language Processing Group at Microsoft Research, Redmond, where he worked on Web search, query understanding and reformulation, ads prediction, and statistical machine translation. From 2005 to 2006, he was a Research Lead in Natural Interactive Services Division at Microsoft, where he worked on Project X, an effort of developing natural user interface for Windows. From 2000 to 2005, he was Research Lead in Natural Language Computing Group at Microsoft Research Asia, where he and his colleagues developed the first Chinese speech recognition system released with Microsoft Office, the Chinese/Japanese Input Method Editors (IME) which were the leading products in the market, and the natural language platform for Microsoft Windows.