Lingnan 嶺南大學 University 香港 Hong Kong
Faculty of Business 嶺南大學商學院
HKIBS HONG KONG INSTITUTE OF BUSINESS STUDIES 香港商學研究所
電腦及決策科學學系
Department of Computing & Decision Sciences
嶺南教育機構陳斌博士數據科學研究所
LEO DAVID P. CHAN INSTITUTE OF DATA SCIENCE

Academic Seminar

Harnessing Federated Learning for AI Advancements: An Overview

The massive accumulation of data greatly promotes the development of AI, giving rise to a series of AI technologies such as ChatGPT. However, in many applications, data are generated at different places in a distributed manner, and privacy concerns often prohibit the sharing of these data for training large AI models. A typical example is in the business sector, where data collected from different areas often contain confidential information or sensitive details, making the sharing of data difficult, if not impossible. Recently, Federated Learning (FL) has been introduced to address this issue. In a typical FL training process, different participants collaboratively train an AI model by iteratively sharing their local models instead of their raw data, thus effectively addressing privacy concerns. This establishes a promising avenue for the future development of larger-scale AI models, as well as facilitating potential commercial deployments of these models. This report presents an overview of FL, its principles, benefits, current commercial applications, and future directions, with a special focus on business areas.

Dr Xuefeng Liu
Associate Professor,
School of Computer Science,
Beihang University

Dr Xuefeng Liu currently serves as an associate professor at the School of Computer Science, Beihang University. He obtained his Ph.D. degree from the University of Bristol in the United Kingdom in 2008. From 2009 to 2014, he conducted research as a visiting scholar at the School of Computer Science, Hong Kong Polytechnic University. He has published over 70 academic papers in domestic and international journals and conferences such as *Mobicom*, *INFOCOM*, and *TMC*. His research interests include federated learning, intelligent signal processing and deep learning.

Date: 18 July 2023 (Tuesday)
Time: 2:30 p.m. - 4:00 p.m.
Venue: SEK210, 2/F., Simon & Eleanor Kwok Bldg.
Language: English

ALL ARE WELCOME

For enquiries, please contact 2616-8373 or by email(hkibs@ln.edu.hk).
Due date: 19 July 2023