

Distinguished Seminar Series on Data Science & Artificial Intelligence

The Long March of Theoretical Exploration of Boosting

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Online via Zoom

English

Please register at <https://polyu.hk/mmzbR>
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All are welcome!

Abstract

AdaBoost is a famous mainstream ensemble learning approach that has greatly influenced machine learning and related areas. A fundamentally fascinating mystery of Adaboost lies in the phenomenon that it seems resistant to overfitting, which has inspired a lot of theoretical investigations. In this talk, we will briefly introduce the long history of learning theory studies and debates about Boosting, where the recently concluding result discloses the importance of minimizing margin variance when maximizing margin mean during learning process, which provides new inspiration for the design of powerful learning algorithms such as ODMs (Optimal margin Distribution Machines).

About the Speaker

Zhi-Hua Zhou is Professor of Computer Science and Artificial Intelligence at Nanjing University. His research interests are mainly in machine learning and data mining, with significant contributions to ensemble methods, multi-label learning and weakly supervised learning. He authored the books "Ensemble Methods: Foundations and Algorithms", "Machine Learning", etc., and published more than 200 papers in top-tier venues. He founded ACML (Asian Conference on Machine Learning) and served for various conferences such as Program Chair for AAI-19 and IJCAI-21, General Chair for IEEE ICDM-16 and SIAM SDM-22, Senior Area Chair for NeurIPS and ICML, etc. He is on the advisory board of AI Magazine, editor-in-chief of Frontiers of Computer Science, associate editor of AIJ, MLJ, IEEE TPAMI, ACM TKDD, etc. He is a recipient of the National Natural Science Award of China, the IEEE CS Edward J. McCluskey Technical Achievement Award, the CCF-ACM Artificial Intelligence Award, etc. He is a foreign member of the Academia Europaea, and Fellow of the ACM, AAI, AAAS, IEEE, and IAPR.