
Peng-Hui YANG

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29 Jiangjun Road, Nanjing, China

EDUCATION

Nanjing University of Aeronautics and Astronautics

Bachelor in Computer Science and Engineering; GPA: 3.9/5.0

Nanjing, China
Sep. 2019 - present

Relevant Courses:

Linear Algebra (91), Data Structure and Algorithm Design (95),

Pattern Recognition (94), Machine Learning (93), Multivariate Statistical Analysis (94)

RESEARCH INTEREST

Multi-Label Learning, Weakly Supervised Learning, Knowledge Distillation

PUBLICATION

Ming-Kun Xie, Peng-Hui Yang, Sheng-Jun Huang. Robust AUC Maximization for Classification with Pairwise Confidence Comparisons (To be submitted to ICML'22)

RESEARCH EXPERIENCE

Multi-Label Knowledge Distillation

Research Project at AL Group | Advisor: Prof. Dr. Sheng-jun Huang

NUAA, Nanjing
Nov. 2021 - Present

- Introduced a new learning framework called multi-label knowledge distillation
- Proposed a novel method for this problem based on label dependencies and correlation matrix

Pairwise LDAM Loss for Long-Tailed Multi-Label Classification

Research Project at AL Group | Advisor: Prof. Dr. Sheng-jun Huang

NUAA, Nanjing
Sep. 2021 - Present

- Generalized label-distribution-aware margin loss to ranking loss by minimizing a margin-based generalization bound

Robust AUC Maximization for Classification with Pairwise Confidence Comparisons

Research Project at AL Group | Advisor: Prof. Dr. Sheng-jun Huang

NUAA, Nanjing
Apr. 2021 - Sep. 2021

- Proposed a robust method called PC-AUC to solve pairwise comparison (Pcomp) classification problems by minimizing pairwise surrogate losses
- Proved that there exists a linear dependence between the proposed loss and AUC
- Provided the estimation error bound for the proposed method and proved its consistency with respect to AUC
- Achieved comparable performance to baseline models on multiple datasets and validated the effectiveness of the proposed method

SKILLS

Programming Languages: Python

Libraries: PyTorch, Numpy, Scikit-Learn

Languages: English (TOEFL 98, GRE 323+3)