

# 정보통계 • 보험수리학과 학과세미나

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주제: Greedy Active Learning Algorithm for Logistic Regression Model

<Abstract>

We study a logistic model-based active learning procedure for binary classification problems, in which we adopt a batch subject selection strategy with a modified sequential experimental design method. Moreover, accompanying the proposed subject selection scheme, we simultaneously conduct a greedy variable selection procedure such that we can update the classification model with all labeled training subjects. The proposed algorithm repeatedly performs both subject and variable selection steps until a prefixed stopping criterion is reached. Our numerical results show that the proposed procedure has competitive performance, with smaller training size and a more compact model, comparing with that of the classifier trained with all variables and a full data set. We also apply the proposed procedure to a well-known wave data set (Breiman et al., 1984) to confirm the performance of our method.