

# **SVM algorithm and its application in gender classification**

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**Abstract:** This topic focuses on researching the Support Vector Machine (SVM) algorithm for gender classification based on image features. The context for selecting this topic is driven by the high demand in the information technology and healthcare industries for accurate gender recognition from images. The objective of the research is to build an effective classification system using SVM with the application of machine learning techniques to optimize the model. The research methodology includes both theoretical and experimental approaches, aimed at evaluating model performance through practical tests. The expected outcomes of the topic not only provide a practical application solution but also contribute to the field of machine learning and gender classification from images.

**Keywords:** Support Vector Machine (SVM), Gender discrimination, Image, Machine learning, Medical