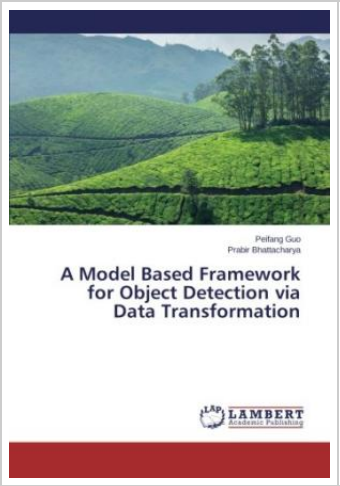




# A Model Based Framework for Object Detection via Data Transformation

By Guo, Peifang / Bhattacharya, Prabir

Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | The dynamic synthesis of nonlinear feature functions is a challenging problem in object detection. This book presents a combinatorial approach of genetic programming and the expectation maximization algorithm (GP-EM) to synthesize nonlinear feature functions automatically for the purpose of object detection. The EM algorithm investigates the use of Gaussian mixture which is able to model the behaviour of the training samples during an optimal GP search strategy. Based on the Gaussian probability assumption, the GP-EM method is capable of performing simultaneously dynamic feature synthesis and model-based generalization. The EM part of the approach leads to the application of the maximum likelihood (ML) operation which provides protection against inter-cluster data separation and thus exhibits improved convergence. The experimental results show that the approach improves the detection accuracy and efficiency of pattern object discovery, as compared to some state-of-the-art methods for object detection existing in the literature. | Format: Paperback | Language/Sprache: english | 64 pp.



### Reviews

*Comprehensive information! Its this sort of very good read through. This is certainly for all those who statte that there was not a worthy of studying. Your daily life period will likely be convert as soon as you total reading this publication.*

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