Monitoring Safety of Autonomous Vehicles with Crash Prediction Networks

Abstract:
Automation needs safety inbuilt in the system such that it behaves at least as well as a diligent human in unforeseen circumstances, if not better. It is therefore necessary that the machine learns to behave intuitively by predicting future occurrences and take actions accordingly. Machine learning techniques, therefore, have to focus on safety issues. Human development and the consequential environmental changes will only push safety requirements higher demanding artificial intelligence to fill in the voids so generated. The purpose of this paper is to study the artificial intelligence perspective on safety challenges and concerns of such systems through an extensive literature review and propose a futuristic and easily adaptable system using deep learning technique. The paper would focus primarily on safety aspects of autonomous vehicles using Bayesian Deep learning method.

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