

Technical Report

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Index

Training

Ranking

Reward

Introduction

This report details the technical steps taken to train machine learning models and compare decisions made with these models. The report is divided in three parts: training, validating, ranking decisions, computing reward. The steps we followed are depicted in Figure 1.

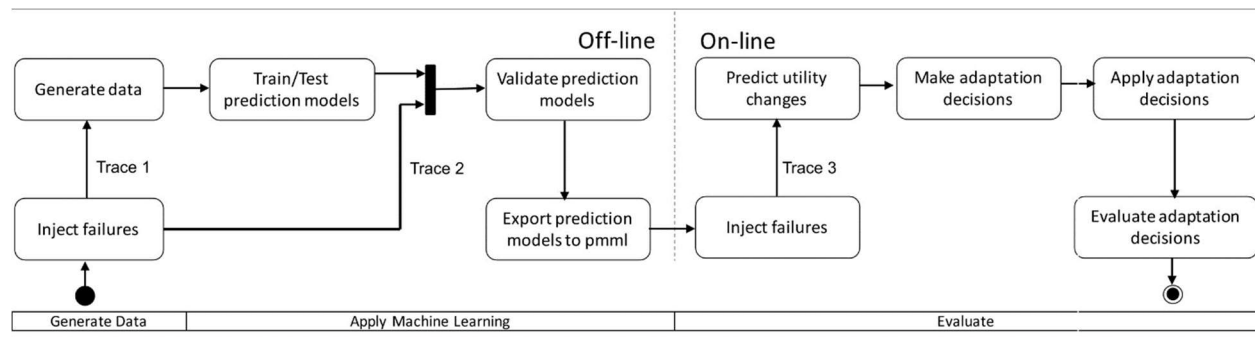


Figure 1 Methodology

The methodology that we followed divided between an off-line training process (performed in R) and an online execution of the trained models, which is performed in Java (utilizes an XML format exported by R). Both online and offline processes depend on injection of real failures. Next we explain each of these activities and provide data that was generated.

Inject Failures

We two types of failure traces: synthesized and real

Training

The first step is to create Training compriseses the machine learning models to predict utility functions