

# Master Thesis Summary: *title of the thesis*

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## 1 Introduction

The software development is fundamental in the new world, how about using artificial intelligence to improve it?

The development of a software product is not different from any kind of hardware product development, after the first phase of design the production starts, during it problems emerge systematically and must be managed before the release in production.

Every day each a software house perform hundreds of commit, each one contains a lot of informations linked to an issue, with structured commit, driven issue report and other software engineering stuff, the quality of the sourcing improve, allowing data to be used in artificial intelligence analysis. Predicting defectiveness during the making of the software can drastically improve the process of development, allocating the correct number of developer could reduce the time required and avoid delay and problems before releases. With a correct preprocessing and evaluated aggregation, neural networks can predict, with high accuracy, the defectiveness trend. These forecast can be further used to improve the software engineering background of the related project.

Forecasting is one of the most critic part of a company, it could drive to easily success as well as drive to failure. A software project is not different from a manufacturing product, its development, infact, require analysis of different kind, from resources needed to costs and time required.

The software development experience shows that the process of analysis is really

difficult, due to the nature of the problem, coding is a mind product and the time required to produce it can vary in accord to a lot of different factors.