



POLITECNICO
MILANO 1863

REQUIREMENTS ANALYSIS AND SPECIFICATIONS DOCUMENT

SOFTWARE ENGINEERING II PROJECT - A.Y. 2019-2020

SafeStreets

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October 25, 2019

Version 1.0

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1 Introduction

1.1 Purpose

The main purpose of SafeStreets is to create a software that provides users the possibility to notify authorities when parking violations occur providing some useful features such as finding the most unsafe areas around them and **proposing suggestions to the municipality**. In addition SafeStreets will enable the Local Police to generate traffic tickets from it and to cross all the information it owns with the data of the accidents happened.

Specifically, we want to realize a product which is able to:

- Retrieve pictures uploaded by users of parking violations with possible attached information such as license plate position in the image, type of violation and GPS meta-data.
- Automatically complete the data of a reported violation running a recognition algorithm able to read license plate text.
- Highlight to users the areas with the highest frequency of violations and information about vehicles that commit most violations.
- Automatically identify potentially unsafe areas crossing SafeStreets' information with accident datas from the Local Police, possibly suggesting possible interventions.
- Send violations data to the Local Police to automatically create new traffic tickets if it can be proved that the chain of custody of the information coming from the users is never broken.
- Generate statistics related to ticket emissions to inform users about how effective is SafeStreets.

On the other hand, the purpose of this paper is to define in a detailed way all the functions and requirements of the application.

In doing this, we start focusing on a brief overview to characterize the product with relevance to its interaction with the world, then we will proceed deeply in analysing which functions are relevant and should be provided, and which requirements are needed to the stakeholders.