Description of the problem and a discussion of the background

According to WHO, 1.35 million people die each year on the Word's roads, amongst which a 54% corresponds to vulnerable road users [1]. Traffic Collisions is a multidimensional issue related to a wide range of factors such as human factors (e.g. Motor vehicle speed, alcohol, distraction), road design, vehicle design and maintenance as well as sociological factors [2]. Furthermore, It is observed that minor and serious accidents are more frequent in urban areas, whereas fatal accidents are more likely in rural areas while the number of accidents in n urban area depends on population size superlinearly [3].

Seattle, a large seaport city on the West Coast of the United States [4] is one of the 10 most congested cities in North America in terms of traffic and the 110th worldwide [5]. Recent reports rank Seattle as the 10th worst city to drive in the U.S. [6], fact that in accordance with Seattle's population (city population :753,675 people [6], metropolitan area population: 3,98 million [7]) might indicate a large number of traffic collisions.

The current project aims to explore data on Seattle's collisions for the time range of 2004 to 2020 and to implement prediction models to predict the different accidents' severity.