Pre-planning Intersection Traversal for Autonomous Vehicles

Master's Thesis in Computer Engineering

Ian Dahl Oliver

Department of Electrical and Computer Engineering
Aarhus University
Aarhus, Denmark

ian.oliver@post.au.dk

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Supervisor: Lukas Esterle

lukas.esterle@ece.au.dk

AARHUS
UNIVERSITY

Preface

This master thesis is titled “Pre-planning Intersection Traversal for Autonomous Vehicles” and is devised by Ian Dahl Oliver. The author is a student at Aarhus University, Department of Electrical and Computer Engineering, enrolled in the Computer Engineering Master’s programme. The author has completed a Bachelor’s degree in Computer Engineering under the same conditions.

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An additional thanks goes to...

All software developed in this thesis is released under the MIT license, and is provided as is without any warranty.

Enjoy reading,
Ian Dahl Oliver

Abstract

hello Robot Operating System 2 (ROS2)

Nomenclature

Some terminology and type setting used in this thesis may not be familiar to the reader, and are explained here for clarity.

Hello › World

Acronyms Index

Acronym	Definition
API	Application Programming Interface
CNN	Convolutional Neural Network
CPU	Central Processing Unit
DOF	Degrees of Freedom
GNN	Graph Neural Network
GUI	Graphical User Interface
ID	Identifier
JSON	JavaScript Object Notation
MLP	Multilayer Perceptron
PNG	Portable Network Graphics
PRNG	Pseudo-Random Number Generator
RMSE	Root Mean Squared Error
RNG	Random Number Generator
ROS2	Robot Operating System 2
TOML	Tom's Obvious Minimal Language
UI	User Interface
UX	User Experience
YAML	YAML Ain't Markup Language

Contents

1 Introduction

The introduction to the thesis will be structured as follows...

1.1 Motivation

1.2 Problem Definition

2 Related Works

3 Background

This section outlines the theory relevant to the thesis. It begins with...

3.1 section 1

4 Methodology

This section covers the methodology and work produced as part of the thesis...

4.1 Section 1

5 Results

This section details the experiments conducted

6 Discussion

In this section...

7 Conclusion

References

Appendix

A: Appendix 1