



# A Priority-Based Policy for Autonomous Intersection Control

**Chenglong HU**    Liang ZHANG

School of Computer Science  
Fudan University, Shanghai  
200433, China

May 5, 2019

# Table of Contents

- 1 Introduction
- 2 Related Work
- 3 Background
- 4 Our Work
- 5 Conclusion
- 6 Q&A



# Introduction

- something



# Table of Contents

- 1 Introduction
- 2 Related Work**
- 3 Background
- 4 Our Work
- 5 Conclusion
- 6 Q&A



# Related Work

## ① something



# Table of Contents

- 1 Introduction
- 2 Related Work
- 3 Background**
- 4 Our Work
- 5 Conclusion
- 6 Q&A



# Background

Point1 the point 1 is



# Table of Contents

- ① Introduction
- ② Related Work
- ③ Background
- ④ Our Work
- ⑤ Conclusion
- ⑥ Q&A





# Motivation



# Definition

Block Title

Something in block

# Find highest priority request

## Algorithm 1: Find highest priority request

### Input:

The hashmap to find vehicles in a lane,  $l2v$ ;

The hashmap from vehicle to its request,  $v2m$ ;

### Output:

Highest priority request,  $request$ ;

### Function

```

    nearest vins  $\leftarrow$  empty
    foreach lane in the keyset of  $l2v$  do
        v  $\leftarrow$  null
        foreach vin in  $l2v[lane]$  do
            v  $\leftarrow$  nearest vin in this lane
        end
        nearest vins  $\leftarrow$  nearest vins  $\cup$  v
    end
    if nearest vins is empty then
        return null
    end
    foreach vin in nearest vins do
        request  $\leftarrow$  highest priority request
    end
    foreach vin in nearest vins do
        if request is not  $v2m[vin]$  then
            set  $v2m[vin]$ 's priority as twice
        end
    end
end
end

```

# Demo

Something description



Figure: Caption here

# Experiments

Table: average passing using for different policy

Passing Time(s) Sim Time(s)	Policy	FCFS Policy	Priority-based Policy
50		10.24	9.96
100		14.98	13.56
150		18.83	15.46
200		19.34	15.38
250		21.23	17.86
300		22.65	20.05

# Analysis



# Table of Contents

- 1 Introduction
- 2 Related Work
- 3 Background
- 4 Our Work
- 5 Conclusion**
- 6 Q&A



# Conclusion and Future work

Future work





# Table of Contents

- ① Introduction
- ② Related Work
- ③ Background
- ④ Our Work
- ⑤ Conclusion
- ⑥ Q&A



Thanks Q&A

