

A person wearing blue jeans and brown shoes stands on a white arrow painted on a road. The arrow points downwards. The person's shadow is cast on the road to their left. The background is a paved road with white lane markings.

ALGORITHMS

TERM

PROJECT

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Outline

1. Methods
 - a. Survey
 - b. Implementation
2. Problem Statement
 - a. Solution
3. Result and Performance

1.

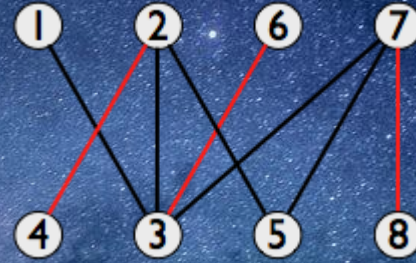
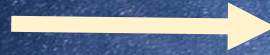
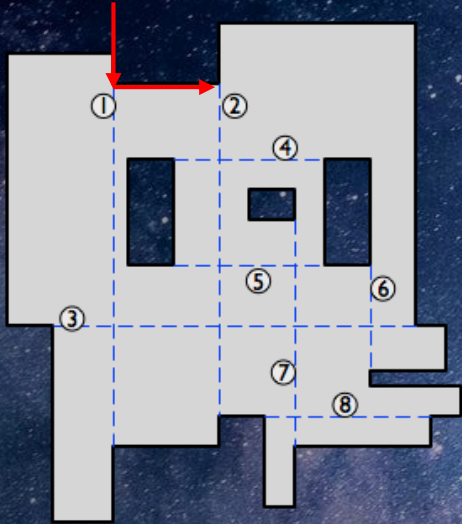
Method

Let's start with the first set of slides



BOOST.POLYGON LIBRARY

- Merge (+)
- Clip (-)
- Split (*get_rectangles*)



More Lines! Less Intersect!
-> Bipartite Matching

Problem

Statement

- Sequence of Operations
 - Operations did not match each Data sequence
- Solution
 - Mapping



Results and Performance

- Use OpenCase to evaluate
- For OpenCase_1
 - Number of Rectangular: 449
 - Running Time: 0.284755 (s)
- For OpenCase_2
 - Number of Rectangular: 586132
 - Running Time: 160.202 (s)

```
(base) josephtangtang@josephtang:~/thm/final_project$ ls
0908.3916v1.pdf  2019CADContest ProblemE V3 total.pdf  CaseResult.txt  OpenCase 1.txt  OpenCase 2.txt
(base) josephtangtang@josephtang:~/Documents/Algorithm/final_project$ ./test OpenCase 1.txt out1.txt
Time taken: 0.282835
(base) josephtangtang@josephtang:~/Documents/Algorithm/final_project$ ./test OpenCase 2.txt out2.txt
Time taken: 160.202
```



Thanks!

Any questions?

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