Software Projects

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new Dataset:

- Natural Language Landmark Navigation Instructions
- 7,672 instances
- written and validated by humans with the help of OpenStreetMap and Street View
Projects Context: Dataset Instruction Writing

Turn left at the light with Starbucks on the left corner. Go through the next light with the park on your left. Stop at the next T-intersection with the park on the near left corner and a hospital on the far left corner.
Projects Context: Dataset Navigation Run

Turn left at the light with Starbucks on the left corner. Go through the next light with the park on your left. Stop at the next T-intersection with the park on the near left corner and a hospital on the far left corner.
Projects Context: Dataset Navigation Run

- **failed**
- **passed**

- **passed** when run annotator stops within 25 meter radius around goal location
Projects Context

Paper that introduces the dataset:


Website to explore the dataset

- https://map2seq.schumann.pub
- Username: coli
- Password: 325inf
Projects

1. rule-based system to generate navigation instructions
2. detect mentions of landmarks in the instructions text
1. Project: Rule Based Navigation Instructions

Design a system that generates landmark navigation instructions for a given route in OpenStreetMap.

- use tools like SimpleNLG [Gatt and Reiter 2009]
- it is possible to use the dataset to extract certain phrase templates or learn landmark usage statistics
- evaluation of generated navigation instructions in Street View
2. Project: Detect Landmark Mentions in Navigation Instructions Text

Take your first right, at the intersection with a church on the opposite corner. Go straight for the next three blocks and stop just after the third light, where there will be restaurants to your right and left. If you see Union Square park to your right, you’ve gone a block too far.

- tagging problem, similar to Named Entity Recognition (NER)
- any approach possible (SVM, CRF, neural, ...)
- tag instructions from the dataset and evaluate/compare your approaches