CODECHECK certificate 2025-026

github.com/codecheckers/certificate-2025-026/

CODECHECK summary

Item	Value
Title	*Automated validation of route instructions in indoor environments*
Authors	Reza Arabsheibani (ORCID: 0000-0003-2224-3823), Stephan Winter (ORCID: 0000-0002-3403-6939), Martin Tomko (ORCID: 0000-0002-5736-4679)
Reference	doi.org/10.5311/JOSIS.2025.30.385
Repository	github.com/codecheckers/certificate-2025-026
Codechecker	Linus Dexter Hackel (ORCID: 0009-0000-0114-8005)
Date of check	2025-12-16
Summary	The check was not successfull so far as no Figure or Table could be reproduced, as most scripts provided are missing some input files, which aren't provided in the fishare repository.

Summary of output files generated

File	Comment		Size (b)
`Route_Instructions_LongestShortest_length.csv`	The csv file containing LSP routes and route instructions for all grammars.		30183

Summary

The check was not successfull so far as no Figure or Table could be reproduced, as most scripts provided are missing some input files, which aren't provided in the fishare repository.

CODECHECKER notes

The first file I tried to run was Complexity_Criteria_Finder_parallel.py to compute the overall floorplan complexity (complexity). While doing this, I came across an error resulting of a missing `.xlsx` file. I now have to contact the authors and ask if this file is available.

The second file I executed was `Generate_Route_Instructions_LongestShortestV4.py` to generate LSP routes and route instructions for all grammars. This script executed perfectly and the file `data/RI/Route_Instructions_LongestShortest_length.csv` was created.

The third file needed a different Route Instructions File then the one which was created by `Generate_Route_Instructions_LongestShortestV4.py` (but it was provided in the repo). When that was done the file executed perfectly for some RI whereas it couln't produce games for other RI, as the associated .geojson files for this where missing from the data directory.

The fourth file I executed was `Read_Route_Instructions.py` to parse success or failure logs into structured results. This didn't work at all. Even after changing the fiel name to the correct Rout Instructions File, that was created in step 3 before, I got a error relating to a non existing index in an array called data.

The last file I tried executing was `Run_Experiment.py` to aggregate the results and produce the statistics used in Fig. 11 / Table 5. The execution failed though, as the script needed to read a file called `geojson/Letter_BoundingBs.shp` which didn't exist.

Recommendations to the authors

TODO

Citing this document

Linus Dexter Hackel (2025). CODECHECK Certificate 2025-026. GitHub. github.com/codecheckers/certificate-2025-026/

About CODECHECK

This certificate confirms that the codechecker could independently reproduce the results of a computational analysis given the data and code from a third party. A CODECHECK does not check whether the original computation analysis is correct. However, as all materials required for the reproduction are freely availableby following the links in this document, the reader can then study for themselves the code and data.

About this document

This document was created using a jupyter notebook and converted into PDF via nbconvert, pandoc, and xelatex.

License

Manifest files

CSV files

`data/RI/Route_Instructions_LongestShortest_length.csv`

Author comment: *The .csv file containing LSP routes and route instructions for all grammars.*

Column summary statistics:

	count	unique	top	freq
0	1139	1139	distinct	1.0000
1	1139	30	5	131.0000

Figures