Recursive Solver for Sudoku

A Data Management Plan created using DMPTool

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Template: Digital Curation Centre (DCC)

Project abstract:

One of the definitive ways of solving a Sudoku is by recursive model. This study aims to create and compare different recursive Sudoku solvers utilizing parallel processing. A possibility of creating an artificial neural network that is non-recursive, or a recursive neural network that solves Sudoku is explored. An estimate of how long it will take to solve the Sudoku minimum number of clues problem is calculated.

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Copyright information:

Recursive Solver for Sudoku

Data Collection

Sudoku puzzles (hard) will be created with an algorithm. Open source Sudoku puzzles will also be taken from Kaggle.

A documented code in MATLAB/Python will be used to create Sudoku. Links to the database on Kaggle will be provided.

Documentation and Metadata

A well commented code will be generated. A report will also be generated, that walks through the usage of the code and then discuss results.

Ethics and Legal Compliance

Data and model generated by this project will be open access.

The author will own copyright to the data. The aim is to make this data and the model available for public access via a public Github repository.

Storage and Backup

There is sufficient storage for the data generated for this project. The data will be backed up multiple times per week on Github. The primary location of the data will be a private google drive account. The primary investigator will be responsible for backup and recovery.

This data will be made publically available using a Github public repository.

Selection and Preservation

All data must be retained for further research. This research might have applications in AI, cryptography, etc.

Data will be open to public via Github. This method is currently available free of charge. Options might be sought in the future if this changes. Time to prepare data for sharing has been budgeted.

Data Sharing

Data will be shared through a Github public repository and will be made searchable with keywords. Github mechanism will be used to share this data.

No restrictions on data sharing are required.

Responsibilities and Resources

The primary investogator is responsible for all data management. This project is a self funded project, and as such there are no external parties involved.

No additional resources will be required to deliver this plan. Data repository of choice is free to use as of now.

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