TYPORA THEME PREVIEW FILE

Basic Usage

Paragraph

This paper is motivated by the difficulty in deploying novel deep neural networks to embedded systems with limited hardware resources. Although state-of-the-art deep neural networks can achieve extremely high performance, it requires **considerable storage** and **memory bandwidth** to normally execute, which is not suitable for deployment over light devices such as mobile systems, because of unacceptable large binary files and excessive energy consumption.

List

Here are a collection of graph search algorithms

- **DFS** (Depth First Search)
- **BFS** (Breadth First Search)
- **UCS** (Uniform Cost Search)
- **A*** (A* Search)

Math

The loss function for binary classification is given by

$$\mathcal{L} = \frac{1}{N} \sum_{i=1}^{N} \left[-y_i \log \hat{y}_i - (1-y_i) \log \left(1-\hat{y}_i\right) \right]$$

Table

Comparison of common documentation tools are shown in the following table.

Tools	Language	Pros	Cons
Typora	Markdown	real-time rendering, customization	not extensible
VS Code	Markdown	integrated, extensible	no real-time rendering
LyX	Latex	real-time rendering	no customization
Overleaf	Latex	online working, shared documents	network issue
Word	Word	widely used	inefficient to type formulas

Code

File `./calc_max.py` implements the function of calculating max values for each column given a csv file.

```python
import pandas as pd

def calc_max_for_each_column(file_name):
    data = pd.read_csv(file_name)
    max_values = {key: data[key].max for key in data.keys()[1:]}
    return max_values
```

Pseudo-code

Algorithm 1 Euclidean Algorithm

Inputs: $a, b \in \mathbb{R}$

Outputs: the greatest common divisor of pair (a, b)

Function $\texttt{gcd}(a, b)$

$r = a \mod b$

while $r \neq 0$

$a = b; b = r; r = a \mod b$

return b