題目：中文題目

Title：GANxxxxx

姓　名 Name	：	某某某
學　號 StudentNo.	：	18098xxx-xxxx-xxxx
學　院 Faculty	：	xxxx
課　程 Program	：	xxx
專　業 Major	：	xxxx
指導教師 Supervisor	：	xxxx
日　期 Date	：	2022 年 4 月 5 日

GANxxxxx

by

HE

(StudentNo.: 18098xxx-xxxx-xxxx)

Supervisor: xxxx

A thesis

submitted to the Faculty of Information Technology

and the School of Graduate Studies of

Macau University of Science and Technology

in partial fulfillment of the requirements for the degree of

xxxx

in

xxxx

April 5, 2022

摘要

摘要

關鍵詞: XXXX

Abstract

Abstract

Keywords: XXXX

Contents

List of Figures

List of Tables

Chapter 1. Chapter one

Chapter one's contents. There is the citation. [1, 2]

- Introduction
- Related work
- Background
- Notation
- Method
- Experiment
- Conclusion

1. Introduction
2. Related work
3. Background
4. Notation
5. Method
6. Experiment
7. Conclusion

Chapter 2. Chapter two

Chapter two'contents.

2.1 Section two

2.1.1 Table

Subsection's contents in Table 2.1 and 2.2 .

2.1.2 Algorithms

Subsection's contents.

The Algorithms 1 and Algorithms 2:

2.1.3 Figure

Figure contents

I Subfigure

In Figure 2.1 and Figure 2.2, ...

II Tikz Figure

In Figure 2.3 [1] ....

[1] referred from https://latexdraw.com/draw-flowcharts-latex-tutorial/

Table 2.1 Comparison of the APs and mAPs with our framework and those from DPM and R-CNN on PASCAL VOC 2007 testing dataset.

	plane	bike	bird	boat	bottle	bus	car	cat
DPM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-CNN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ours	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

	chair	cow	table	dog	horse	mbik	pers	plant
DPM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-CNN	0.0	0.0	0.05	56.1	60.6	66.8	54.2	**0.0**
Ours	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	0.0

Figure 2.1 MUSTSchoolBadgecolor.pdf

Algorithm 1: IntervalRestriction

Data: $G = (X, U)$ such that G^{tc} is an order.
Result: $G' = (X, V)$ with $V \subseteq U$ such that G'^{tc} is an interval order.

begin
  $V \longleftarrow U$
  $S \longleftarrow \emptyset$
  for $x \in X$ **do**
    $NbSuccInS(x) \longleftarrow 0$
    $NbPredInMin(x) \longleftarrow 0$
    $NbPredNotInMin(x) \longleftarrow |ImPred(x)|$
  end
  for $x \in X$ **do**
    if $NbPredInMin(x) = 0$ **and** $NbPredNotInMin(x) = 0$ **then**
      $AppendToMin(x)$
    end
  end
  while $S \neq \emptyset$ **do**
    remove x from the list of T of maximal index
    while $|S \cap ImSucc(x)| \neq |S|$ **do**
      for $y \in S - ImSucc(x)$ **do**
        { remove from V all the arcs zy : }
        for $z \in ImPred(y) \cap Min$ **do**
          remove the arc zy from V
          $NbSuccInS(z) \longleftarrow NbSuccInS(z) - 1$
          move z in T to the list preceding its present list
          {i.e. If $z \in T[k]$, move z from $T[k]$ to $T[k-1]$}
        end
        $NbPredInMin(y) \longleftarrow 0$
        $NbPredNotInMin(y) \longleftarrow 0$
        $S \longleftarrow S - \{y\}$
        $AppendToMin(y)$
      end
    end
    $RemoveFromMin(x)$
  end
end

Algorithm 2: Algorithm as a Recursive Function

```
1  Function FnRecursive(some args) is /* algorithm as a
     recursive function                                    */
       Data: Some input data
       these inputs can be displayed on several lines and one input can be
       wider than line's width.
       Result: Same for output data
2      /* this is a comment to tell you that we will now
          really start code                                */
3      if this is true then /* a simple if but with a comment on
        the same line                                      */
4          we do that, else nothing;
5          /* we will include other if so you can see this is
              possible                                     */
6          if we agree that then
7              we do that;
8          else
9              else we will do a more complicated if using else if;
10             if this first condition is true then
11                 we do that;
12             else if this other condition is true then
13                 this is done;                  /* else if */
14             else
15                 in other case, we do this;       /* else */
16             end
17         end
18     end
19     /* now loops                                         */
20     for i = 0 to n do
21         a for loop;
22     end
23     while i < n do
24         a while loop including a repeat–until loop;
25         repeat
26             do this things;
27         until this end condition;
28     end
29     They are many other possibilities and customization possible that you
        have to discover by reading the documentation.
30 end
```

Figure 2.2 MUSTSchoolBadgecolor.pdf - 2

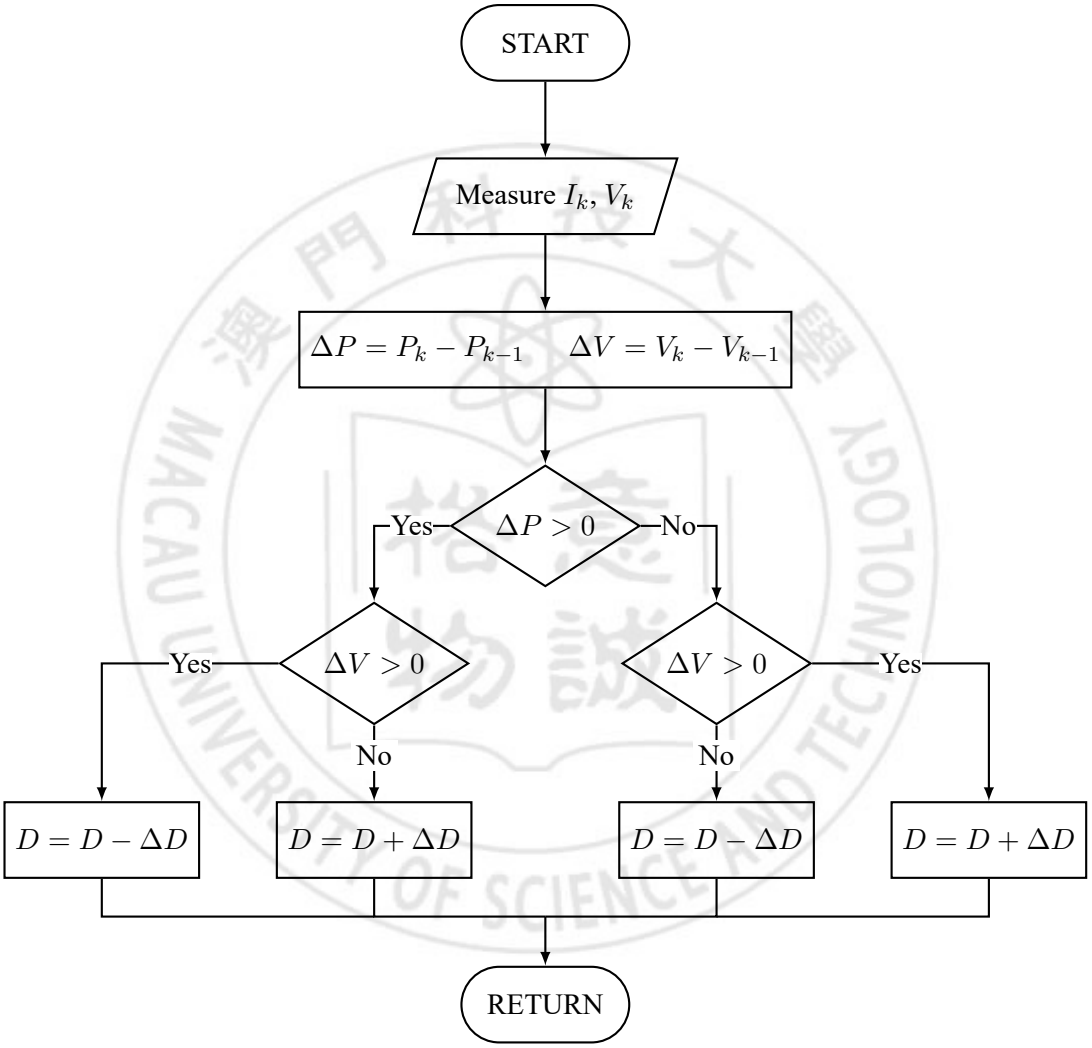

Figure 2.3 Tikz Flowchart

Symbol	Definition
s	Angles of 45°in n-polygon
r	Angles of 90°in n-polygon
l	Angles of 135°in n-polygon
S	The aggregate of all space not matched any piece
P	The aggregate of the weight point position in two-dimensional array
H	Threshold evaluating the probability to search next state
$\eta(p,d)$	Thresholding function of Simulated Annealing

Table 2.2 Notations

2.1.4 Equation

formula example

I Equtaion

$$\int_{-\epsilon}^{\infty} dl\, \mathrm{e}^{-l\zeta} \int_{-\epsilon}^{\infty} dl' \mathrm{e}^{-l'\zeta} ll' \frac{l'-l}{l+l'} \{3\,\delta''(l) - \frac{3}{4} t\,\delta(l)\} = 0. \tag{2.1}$$

$$ds^2 = (1-\frac{qcos\theta}{r})^{\frac{2}{1+\alpha^2}} \{dr^2 + r^2 d\theta^2 + r^2 sin^2\theta d\varphi^2\} - \frac{dt^2}{(1-\frac{qcos\theta}{r})^{\frac{2}{1+\alpha^2}}}\,. \tag{2.2}$$

II Multiple-Line Equation

$$\frac{\phi''}{A} + \frac{1}{A}\left(-\frac{1}{2}\frac{A'}{A} + 2\frac{B'}{B} + \frac{2}{r}\right)\phi' - \frac{2}{r^2}\phi - \lambda\phi(\phi^2-\eta^2) = 0\,. \tag{2.3}$$

$$\begin{aligned} &\mathcal{L} = -\frac{1}{4}F_{\mu\nu}F^{\mu\nu} + \bar{\psi}(i\gamma^\mu D_\mu - m)\psi\,, \\ &S \sim \tilde{\psi}Q_o\tilde{\psi} + g_s^{1/2}\tilde{\psi}^3 + \tilde{\phi}Q_c\tilde{\phi} + g_s\tilde{\phi}^3 + \tilde{\phi}B(g_s^{1/2}\tilde{\psi}) + \cdots\,. \end{aligned} \tag{2.4}$$

III Theorem

Theorem 1 (Separating Axis Theorem)**.** *:* [2] *Let A and B be two disjoint nonempty convex subsets of R^n. Then there exist a nonzero vector v and a real number c such that*

$$\langle x, v\rangle \geq c \quad \text{and} \quad \langle y, v\rangle \leq c$$

for all x in A and y in B; i.e., the hyperplane $\langle \cdot, v\rangle = c$, v is normal vector, separates A and B.

[2] reference from https://en.wikipedia.org/wiki/Hyperplane_separation_theorem

Chapter 3. Chapter Three

Chapter Three' contents.

3.1 Section 3.1

Section 3.1's contents.

Chapter 4. Chapter Four

Chapter Four's contents.

Bibliography

Gatys, L. A., Ecker, A. S., and Bethge, M. (2016). Image style transfer using convolutional neural networks. In *2016 IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, pages 2414–2423.

Reed, S. E., Akata, Z., Yan, X., Logeswaran, L., Schiele, B., and Lee, H. (2016). Generative adversarial text to image synthesis. *CoRR*, abs/1605.05396.

Appendices

A Code listing

A.1 Code Cpp

```cpp
// leetcode 94, 110...
#include <iostream>
#include <vector>
#include <stack>
#include <queue>
#include <unordered_map>

using namespace std;

class AVL
{
public:
};

class Node // N-ary tree
{
public:
    int val;
    vector<Node *> children;

```

```
21      Node() {}
22
23      Node(int _val)
24      {
25          val = _val;
26      }
27
28      Node(int _val, vector<Node *> _children)
29      {
30          val = _val;
31          children = _children;
32      }
33  };
34
35  struct TreeNode
36  {
37      int val;
38      TreeNode *left;
39      TreeNode *right;
40      TreeNode() : val(0), left(nullptr), right(nullptr)
            {}
41      TreeNode(int x) : val(x), left(nullptr), right(
            nullptr) {}
42      TreeNode(int x, TreeNode *left, TreeNode *right) :
            val(x), left(left), right(right) {}
43  };
44
```

```
45 vector<int> res;
46 // N-ary issue
```

A.2 Code Latex

titlepage.sty

```
1  % Title page of Thesis
2  %
3  \newcommand{\titleofthesisC}[1]{\renewcommand{\
       titleofthesisC}{#1}}
4  \titleofthesisC
5  {
6    \vspace*{.5cm}
7    {
8      \bf\sizefont{18pt}
9      \begin{center}
10     \begin{tabular}{p{2em}<{\flushleft} c p{16em}<{\
           flushleft}}
11       題\hfill 目&\hspace{-4mm}: & \Ctitle \\
12       Title& \hspace{-4mm}: & \Etitle
13     \end{tabular}
14     \end{center}
15   }
16
17   \vspace*{1.5cm}
18   {
```

```
19      % \fontsize{12pt}{\baselineskip}\selectfont
20      \sizefont{12pt}
21
22      \begin{table}[htbp]
23      \centering
24        \begin{tabular}{p{5em}ccc}
25          &\mycell{姓\qquad 名}{Name}{\Cname}
26          &\mycell{學\qquad 號}{StudentNo.}{\Stuno}
27          &\mycell{學\qquad 院}{Faculty}{\Faculty}
28          &\mycell{課\qquad 程}{Program}{\Program}
29          &\mycell{專\qquad 業}{Major}{\Major}
30          &\mycell{指導教師}{Supervisor}{\Supervisor}
31          &\mycell{日\qquad 期}{Date}{\Stoday}
32        \end{tabular}
33      \end{table}
34    }
35  }
36
37  \newcommand{\titleofthesisE}[1]{\renewcommand{\
        titleofthesisE}{#1}}
38  \titleofthesisE
39  {
40    \begin{center}
41      \bf\sizefont{18pt}\Etitle\\
42      \vspace{0.25in}
43      \large
44      by \\
```

```
45      \vspace{0.25in}
46      \large
47      \Ename \\
48      \bf\normalsize
49       (StudentNo.: \Stuno)\\
50      \begin{center}
51        \vspace{0.7in}
52        \bf\normalsize
53          Supervisor: \Supervisor\\
54        \vspace{0.8in}
55        \bf\normalsize
56          A thesis\\
57          submitted to the Faculty of Information
              Technology\\ % (Name of faculty)
58          and the School of Graduate Studies of \\
59          Macau University of Science and Technology\\
60          in partial fulfillment of the requirements for
                the degree of\\
61          \Degree \\ %(Name of degree)
62          in\\
63          \Major \\ %(Name of major)
64        \vspace{1in}
65        \today
66      \end{center}
67    \end{center}
68  }
```

Curriculum Vitae

HE

john@mailme.com +1 2345 6789 www.myweb.com

New York, USA

About Me

Educational Background

2010 - 2011, Cornell University

MEng in Computer Science

2007 - 2010, Cornell University

BS in Computer Science

Awards

Working Experience

Product

Interests

Acknowledgements

I am glad to.....

HE

xxxx

April 5, 2022