

Specialist English: Assignment 3

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This third assignment (worth 5% of the final mark) focuses on abbreviations and punctuation. I'll scale the marks on this assignment according to $m \mapsto \min(m, 10)$ for Master's students and $m \mapsto \lceil m/1.3 \rceil$ for Ph.D. students. (There are higher expectations for Ph.D. students.)

My marking will be affected by (a) your English writing, (b) your LaTeX typesetting, (c) your mathematical presentation, and (d) your understanding of the underlying computer science. Basically, I will “peer review” your assignments.

Problem 1 Identify the punctuation-related error(s) in the following three snippets:

[3 marks]

development of parallel algorithm simple and convenient.
MapReduce[5]is a parallel programming model proposed by
Google, which is used for large scale data sets. Its operating
environment consists of the client, the main node and the working

– He and Zhang, *A structure of intelligent grain network ...*, Proc. ICC, 2017.

1. INTRODUCTION

Crowd-Based Software Engineering(CBSE) allows anyone
to participate in software development tasks including docu-
mentation, design, coding and testing. CBSE is widely used

– He and Zhang, *Recommending Relevant Projects via User Behaviour ...*, Proc. CrowdSoft, 2014.

HLBPR:A Hybrid Local Bayesian Personal Ranking Method

– Chen et al., *HLBPR:A Hybrid Local Bayesian ...*, Proc. WWW, 2016.

Problem 2 What's the problem with the reference below?

[1 mark]

Zhang et al. [33]: This method constructs three local graphs for a
candidate set based on coauthors and document similarity. A graph
embedding is learned for each candidate set by sampling triads

⋮

[33] Baichuan Zhang and Mohammad Al Hasan. 2017. Name disambiguation in
anonymized graphs using network embedding. In *CIKM'17*. 1239–1248.

– Zhang et al., *Name Disambiguation in AMiner ...*, Proc. KDD, 2018.

Problem 3 Identify two punctuation errors in the following snippet between “In the hidden ...” and up to and including equation (3). [2 marks]

encoded using 1-of-N and 1-of-M coding separately. In the hidden layer, we use the identity function as the activation function:

$$\mathbf{h}_u = f(\mathbf{x}_u \mathbf{W}_u) = \mathbf{x}_u \mathbf{W}_u \quad , \quad \mathbf{h}_v = f(\mathbf{x}_v \mathbf{W}_v) = \mathbf{x}_v \mathbf{W}_v$$

and the output unit is the dot product of two hidden layers:

$$y = \mathbf{h}_u \cdot \mathbf{h}_v = \sum_i h_{ui} \times h_{vi} \quad (3)$$

The learning objective is to minimize reconstruction error

– Lian et al., *CCCFNet: A Content-Boosted ...*, Proc. WWW, 2017.

Problem 4 Identify a punctuation inconsistency in the following snippet. [1 mark]

lized fixation coordinates. Considering the mean minimum time to acquire the full meaning of a word is 151ms [10], we filter out those clustered fixation coordinates that last less than 151 ms. After we get the stabilized fixation coordi-

– Chen et al., *A Real-Time Eye Tracking Based ...*, Proc. CIKM, 2015.

Problem 5 Rewrite this one-sentence paragraph to fix the punctuation-related errors. [3 marks]

We design the experiment with 4 goals:(1) To evaluate how our proposed algorithm performs compared with other base-line algorithms;(2)To test how different features we considered affect the recommendation performance;(3) To examine how different ranking functions affect the results;(4) To consider how new challenges like the recommendation length restriction and recommendation overload affect the performance of our algorithm.

– Zhang et al., *Whom to Mention ...*, Proc. WWW, 2013.

Problem 6 Describe three ways the following pseudocode improperly uses notation used in programming. (When writing pseudocode, we are communicating with a human, not a computer—we don't communicate with humans using code!)

[3 marks]

Algorithm 3 Master(int K)

```
1: MessageSet  $S$  = null
2: int  $layer\_no=0$ 
3: while TRUE do
4:   Message  $m$  = waitForNextMessage()
5:    $S.add(m)$ 
6:   if  $S.size==K$  then
7:      $var, mean$  = getStatistic( $S$ )
8:     for  $i=0$  to  $K$  do
9:       Matrix  $V$  = doNormalization( $var, mean, S[i]$ )
10:      SendToGPUWorker( $V, S[i]$ )
11:     $layer\_no++$ 
12:     $S.removeAll()$ 
```

– Wu et al., *A New Approach to Compute CNNs ...*, Proc. CIKM, 2017.