Summary Report of Computer Science Graduate Seminar Presentations

Kaiqun Fu

***Abstract*—This report summarizes three presentations of the Computer Science Graduate Seminars series. The topics covered include Computer Security, Network Security, Online Privacy, Machine Learning and Data Management.**

***Index Terms*— Computer Security, Network Security, Online Privacy, Machine Learning and Data Management.**

I. Introduction

THIS report summarizes one seminar question. The following table lists the topic and information about the speaker for each seminar.

	Title	Speaker	Affiliation
1	Mapping Surface Radiation Budget from Remote Sensing Data	Prof. Dongdong Wang	Dept. of Geographical Sciences U. of Maryland
2	Grammar-Based Time Series Pattern Mining and Visualization	Prof. Jessica Lin	Dept. of Computer Science George Mason U.
3	Identification of Association Patterns in Public Literature using Network-based Computational Approaches: Case Studies in Vaccine Research	Prof. Yuji Zhang	Dept. of Epidemiology and Public Health U. of Maryland School of Medicine
4	Self Folding Origami	Prof. Jyh-Ming Lien	Dept. of Computer Science George Mason U.

II. QUESTION DISCUSSION

Question (to Prof. Dongdong Wang): In your talk, you mentioned that the thermal status cannot be captured under the clouds, and you have to combine the thermal images in a large time range to get the overall image. Is there a way for you to model the thermal images under the clouds and get the image in real time?

Answer: This problem is very hard to solve actually, and it is a very hot topic in this area. There is no efficient method to solve this problem right now.

Question (to Prof. Dongdong Wang): Just asking, is there any way to sample the thermal data under the clouds, for example, just like the Google Balloon project, launching a set of low altitude balloons?

Answer: I didn't know whether someone has tried this method before, but I think the altitude must be high enough for the image to show. And if the altitude is too low, the sensors cannot cover large area, and then a tremendous number of sensors are needed.

Question (to Prof. Jessica Lin): In your talk, you mentioned that you used a Gaussian distribution to simulate the overall data distributions, why don't you use some other distributions?

Answer: We selected Gaussian for this example based on our observations, for some other datasets, we used other distributions.

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References

[1] Wang, Sida, and Christopher D. Manning. "Baselines and bigrams: Simple, good sentiment and topic classification." Proceedings of the 50th Annual Meeting of the Association for Computational Linguistics: Short Papers-Volume 2. Association for Computational Linguistics, 2012.W.-K. Chen, *Linear Networks and Systems* (Book style). Belmont, CA: Wadsworth, 1993, pp. 123–135.