Paper Reading Assignment #1 (due on 10/29)

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1. Read the papers assigned to you. You are encouraged to read more papers or even find other related papers that are not provided by me, list them as references of your summary.

2. Try to focus on the following issues:
    a. Understand the background/requirements
    b. Learn from the author(s) in problem solving
    c. Study computational complexity of the algorithms
    d. Your creative ideas
    e. (Bonus) Source code of some algorithms are available from http://security.riit.tsinghua.edu.cn, or ask TA, you are encouraged to try them out or implement those algorithms not on the website. A demo of statistics, a tool to generate dynamic/geometric view of date structure (such as decision tree), or other experiments of your own ideas will help fully understand the problem.

3. Write your summary in your own words based on your own understanding. Use quotation marks or reference points when you quote or reference to the papers.

4. Anyone who is interested in the implementation and/or simulation of the newly emerged hardware algorithms please contact TA. This work can obtain bonus to the final score, or just be taken as the final project of this course.

Students: 2018403322, 2018280048, 2018400404, 2015080058, 2018280083, 2015011012, 2018400413, 2018280070.

Assignment:

Survey [14]: Required for above students.

HiCuts[5]

- 2018403322

EffiCuts[24]

- 2018280048

RFC[3]

- 2018400404

HyperSplit[23]

- 2015080058

D^2BS[30]

- 2018280083

SAX-PAC[34]

- 2015011012

Binary Content Classification[36]

- 2018400413

Multi-Layer Classification[38]

- 2018280070

and others: optional for all.

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[3] P. Gupta and N. McKeown, "Packet Classification on Multiple Fields," in Proceedings of ACM SIGCOMM Conference on Applications, Technologies, Architectures, and Protocols for Computer Communication, 1999.

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[5] P. Gupta and N. McKeown, "Packet Classification using Hierarchical Intelligent Cuttings," in Proceedings of Hot Interconnects VII, 1999.

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