D K Shin Laboratory

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Report Material for Press Conference of Dr. Dong-Keun Shin

Location of Conference: Calasia Room, 3rd Floor, Ritz Carlton Seoul Hotel
Date: February 25, 2011, 2:00-5:00 p.m.

1. Purpose and Objective of Press Conference

In the late 20th century when computers were surprisingly developing human civilization, Dr. Dong-Keun Shin studied computer science in the U.S. and formed computer science theories to contribute to the field greatly. In 1997, he claimed he made the greatest achievement in the world in the field of computer science, sending more than 5,000 letters to 170 countries in the world to declare himself the world's greatest computer scientist. After the declaration, a computational theory with significance was added to his achievements, so he came to stand in a position where no one can surpass him ever. Moreover, he declared all studies and technologies related to computers as his own territory, which belongs to his influence and leadership, and he wants all people to acknowledge this fact and follow him through compliance. To notify the world of such a fact widely and to easily explain Dr. Shin's theories and his plans, his press conference will be held on February 25, 2011. The purpose and objective of Dr. Shin's press conference, as a historically important event, is to have the best theorist in this computer age clearly reveal everything regarding his research achievements and to give sincere answers to any doubts or questions.

2. Contents to be Presented in the Press Conference

In 1999, Dr. Shin sent his press release to 1,200 press institutes in the world, announcing that he discovered a new sorting method in 1998, which is a superb achievement equally as great as his achievement stated in his 1997 declaration as the world's best in computer science. Along with the musical concert he will present as a composer, he would like to reward the people who are interested in his research by making his upcoming press conference stage a beautiful and smooth one. The content to be presented at the press conference is as follows.

First, Dr. Shin's lecture on computational theories is to be given via video for higher understanding, and then a review and verification of the theories will be supported with discussion afterwards. The lecture in the video also will be open to the public with availability through the Internet and is explained at a level that even a layman could understand. In particular, the film shows how Shin sort sorts data.

Secondly, Dr. Shin wants to announce that he hopes to receive recommendations to include research works of the world's best computer scientists in his book's references. Therefore, scientists who can compete with Dr. Shin or scientists who are to be acknowledged will be automatically conspicuous.

Third, Dr. Shin will prepare all of his presentation materials for the purpose of inspiring the world's students to form their own theory.

3. Introduction to Dr. Shin's Computational Theories

Dr. Shin feels thankful to the Creator, God, who has given him creativity and led him to apply his talent to the most important problems of computer science in its early stage. He has felt the joy of accomplishment by discovering and proposing the best solution to a major computing problem. His best solution remains an immortal computer science theory, and his accomplishments have enabled him to reach the status of the greatest computer scientist in the world.

The most eminent discovery among his achievements is the best method for sorting; he discovered it on July 3rd, 1998, about a year after his 1997 declaration as the world's best in computer science. Dr. Shin named the method Shin sort after the last name of his family which fully supported him for the discovery. In computer science textbooks, nine sorting methods that were previously discovered are enumerated, but Dr. Shin's sorting method was discovered as the latest, and it is mathematically proven that Shin sort is superior to the nine sorting methods in terms of speed. Finding the fastest sorting method was, as Dr. Shin has dare said, the most important problem in computer science. And thus, the No. 1 computer scientist position for Dr. Shin was confirmed and the position belongs to him permanently.

For example, if the social security numbers(SSNs) of the American people were sorted in order, using Dr. Shin's sorting method would be the fastest for sorting the 300 million SSNs. Also, even when searching for data of a person with a certain SSN, Shin search, coupled with Shin tree, can be mathematically proven to be the fastest among the existing searching methods. Dr. Shin's sorting method maintains the Shin tree, which resides in the main memory as strictly defined from the beginning. Therefore, if more data are input, the size of the tree increases accordingly, and if an input SSN is eliminated, the size of the tree decreases. Thus, the Shin tree has the form of a tree that enlarges or shrinks through two branches or less by faithfully maintaining its definition from the beginning. The Shin tree exists in the main memory as well-designed storage spaces.

Shin tree for sorting nine words
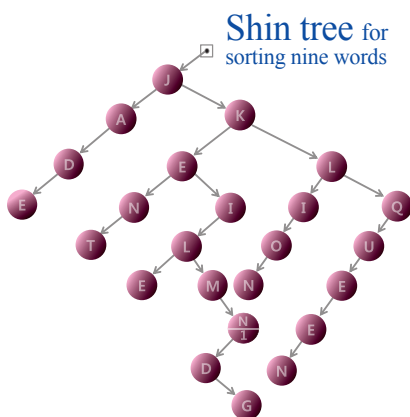
Sorted List

1. JADE
2. KENT
3. KILE
4. KIM
5. KIN
6. KIND
7. KING
8. LION
9. QUEEN

In the future, the theory will become a program built into all softwares that store data to be searched quickly. Most of the program's details are open to the public on the Web site at www.dkshin.com, where it is presented for study and review. However, Dr. Shin is planning to explain the method further with a 20-minute video that depicts the figure illustrated in the left and shows how the nine words are sorted in alphabetical order, all in easy-to-understand language.

Another theory of Dr. Shin's is massive cross-referencing. In his theory of massive cross-referencing, he proposes filtering software that cleverly detects and eliminates data that cannot belong to the result and is unnecessary. In this theory, a hardware architecture that realizes his filter is also illustrated. Dr. Shin

says that the theory of massive cross-referencing is as great as Shin sort, and it can give computer science students a chance to review the core learned in computer science major for their four years in college.

Another great discovery by Dr. Shin in nature is the phenomenon of relatively good (RG) solutions. It was a time when most computer scientists could not perform comparative analysis regarding polynomial time solutions for a problem that basically required an exponential time algorithm for its solution. During his survey of hash functions, Dr. Shin found that the distribution performance of each hash function falls into either the group of relatively good solutions or the group of poor solutions. He realized this surprising fact through his experiment. The fact is that the relatively good solutions group surely exists and, among hash functions in the RG solutions group, there is no distinguishable difference among their performances. As the barometer of distribution performance, mean square deviation was selected. Dr. Shin's correct decision in the selection of the barometer, his fast programming capability and his pure scientific attitude of making hash functions creatively for his experiment took significant roles in recognizing and verifying the phenomenon. The verified phenomenon showed that solutions that are not in the RG solutions group show various degrees of distribution performance and that relatively good solutions do not have distinguishable difference in their distribution performances. The first verified phenomenon was described in his paper that he submitted to the Communications of the ACM in 1991 (Paper No. A869). Because there was no such verification before, he became the first researcher who verified such a phenomenon of nature with his comparative study. His verification of the phenomenon was a milestone that changed the direction of human effort for exponentially increased problems. And also, it was Dr. Shin's important achievement that enabled him to declare himself the world's greatest computer scientist in 1997.