

DR DONG-KEUN SHIN

Dr Dong-Keun Shin, who claimed world leadership in computer sciences, conducts independent research to complete his theories and practices. Born in 1959 in Incheon, South Korea, he grew up in Seoul, Korea's capital city. From the time he was very young, he had dreams about creating his own theoretical world. After graduating from Po Sung high school in Seoul, he emigrated to the USA with his family in 1978, for better education. To make his dream come true, he chose to study computer science since the relatively new field provided good opportunities in research and industrial applications. Dr Shin received degrees in computer science from the University of California at Berkeley and the George Washington University. He worked for the former university's EECS Department as academic computing coordinator in his undergraduate years, and lectured in computer hardware and software courses at the latter in his graduate years. As an engineer, analyst or programmer, he has worked at several companies, including B-Delectron, Xerox, CBSI, SRA and Samsung Electronics. His current research interests include computer science theory and database systems.

While surveying hash functions for his doctoral dissertation, Dong-Keun Shin was the first to verify that there is no distinguishable difference between the performance of one relatively good and data-independent hash function and that of another. Dr Shin coined the term "phenomenon of relatively good (RG) solutions" in reference to the verification. Based on the first verification, he developed the hypothesis that the phenomenon of RG solutions is present in each group of polynomial time solutions for complex problems that basically require exponential time algorithms as solutions. He is preparing to verify the hypothesis for other complex problems. He has also contributed significantly to computer science by discovering and proposing best algorithms in the areas of sorting, hash functions, massive cross-referencing or the join database operation, and polygon clipping. His papers show that his algorithm for massive cross-referencing or the join, with its several versions, is best of its kind to date and his (mapping) hash function is the best hash method.

In early 1997, Dr Shin offered a challenge to the world's academic communities and computer scientists to refute the legitimacy of his verification and discoveries, as well as his claim to having made the greatest contribution to computer science. At that time, he sent letters to each nation's one or two highest political leaders, ministers of education or equivalent, the chairman of UNESCO, and heads of major universities and colleges in about 170 countries. Armed with his accomplishments, he expressed his desire to gain leadership in computer science academia through fair competition. He believes that any computer scientist with only a theory or idea can participate in such competition to win, regardless of racial, educational or social background. He also believes that the competition will create the academic hierarchy's uppermost group which must be very small. Computer scientists, who are examined through the competition and included in the group, will influence present and future students in the world to strive for a greater understanding of computer science. He thought that as the highest achiever in computer science he needed to take the mailing action to verify that his ideas were truly under his ownership and to stop any plagiarism. The schools to which he sent his challenging letters numbered over 4,300, but he has encountered no serious challenge as yet.

Moreover, on 3 July 1998 Dr Shin discovered a new sorting algorithm, Shin sort, which is the best solution to the problem of sorting and searching. This new algorithm seems to secure his victory in the battle for world leadership in computer science. In April 1999 he sent letters to some 1,200 press-related organizations worldwide. In his letters to the press, he proclaimed that he would lead people in computer science from the beginning of the 21st century, if no challenge arose. His letters leave world's computer scientists two options: to compete with him or to follow him. However, Dr Shin thinks that his involvement in experiments and application practices rather than pure research on computer science theory may put him at a disadvantage. If he loses, he will send letters to the world to announce the winner of the competition and will support the winner in his new leadership for world's computer science academia.

After designing and implementing a prototype of his sorting and searching software, he will eventually develop it into a Shin sort and search database management system (S-DBMS). S-DBMS creates Shin's trees in main or local memory for fast text/image/sound data retrieval. His press release in April 1999 shows that his sorting and searching scheme that traverses Shin's tree will replace current sorting and searching algorithms, hashing schemes and hash tables, and most trees including B-trees, due to the Shin sort/search algorithm's theoretical superiority. He believes that Shin sort will be used in most database systems and computer-based systems in future. As discoverer of the best solution for the sorting and searching problem, he may enjoy certain privileges, such as the right to write about sorting and searching theory and the publication of computer science textbooks.

Further details of Dr Shin's achievements can be found in his research collection entitled "A Collection of Research Processes for Genealogy and Proofs", thirty volumes of which have currently been submitted to the chairperson of the EECS Department, University of California at Berkeley. In Seoul, Korea, he has once lectured on computer-based systems for an introductory course at the University of Maryland's Asian Division. He is also involved in managing his family-owned Hwa Shin Building in downtown Seoul.

Although Dr Shin has accomplished his long held dream of owning a theoretical world, he wants to serve mankind further with his creative talent. He plans to continue conducting computer science research and industrial computer applications, and to publish his theories and ideas in the computer science/engineering field.

A biography of Dr Dong-Keun Shin appears in the main section of this Edition.



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*For your Outstanding Contribution
to Computer Science*