

Raymond Chi-Wing WONG Professor The Hong Kong University of Science and Technology

Biography: Raymond Chi-Wing Wong is a Professor in Computer Science and Engineering (CSE) of The Hong Kong University of Science and Technology (HKUST). He is currently the associate head of Department of Computer Science and Engineering (CSE). He was the associate director of the Data Science & Technology (DSCT) program (from 2019 to 2021), the director of the Risk Management and Business Intelligence (RMBI) program (from 2017 to 2019), the director of the Computer Engineering (CPEG) program (from 2014 to 2016) and the associate director of the Computer Engineering (CPEG) program (from 2012 to 2014). He received the BSc, MPhil and PhD degrees in Computer Science and Engineering in the Chinese University of Hong Kong (CUHK) in 2002, 2004 and 2008, respectively. In 2004-2005, he worked as a research and development assistant under an R&D project funded by ITF and a local industrial company called Lifewood.

He received 40 awards. He published 104 conference papers (e.g., SIGMOD, SIGKDD, VLDB, ICDE and ICDM), 39 journal/chapter papers (e.g., TODS, DAMI, TKDE, VLDB journal and TKDD) and 1 book. He reviewed papers from conferences and journals related to data mining and database, including VLDB conference, SIGMOD, TODS, VLDB Journal, TKDE, TKDD, ICDE, SIGKDD, ICDM, DAMI, DaWaK, PAKDD, EDBT and IJDWM. He is a program committee member of conferences, including SIGMOD, VLDB, ICDE, KDD, ICDM and SDM, and a referee of journals, including TODS, VLDBJ, TKDE, TKDD, DAMI and KAIS.

His research interests include database, data mining and artificial intelligence.

Title of Speech: Finding the User's Favorite Tuple in the Database

Abstract: When faced with a database containing millions of tuples, an end user might be

only interested in finding his/her favorite tuple in the database. In this talk, we study how to help an end user to find such a favorite tuple with a few user interactions. In each interaction, a user is presented with a small number of tuples (which can be artificial tuples outside the database or true tuples inside the database) and s/he is asked to indicate the tuple s/he favors the most among them. Different from the previous work which displays artificial tuples to users during the interaction and requires heavy user interactions, we achieve a stronger result. Specifically, we use a concept, called the utility hyperplane, to model the user preference and an effective pruning strategy to locate the favorite tuple for a user in the whole database.