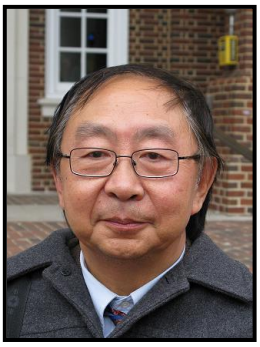
CAPSL
Computer Architecture and Parallel Systems Laboratory
Department of Electrical and Computer Engineering



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Guang R. Gao received both his Masters and PhD degrees in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology (MIT), in 1982 and 1986, respectively. He is the first student from China to receive such computer science graduate degrees from MIT.

Dr. Gao is currently an Endowed Distinguished Professor in the Department of Electrical and Computer Engineering at University of Delaware, USA, where he has founded and directed the Computer Architecture and Parallel Systems Laboratory (CAPSL) since 1997. Prior to that, Dr. Gao worked at McGill University, Quebec – Canada, from 1987 to 1996, where he established the Advanced Compilers, Architectures and Parallel Systems Laboratory (ACAPS).

Dr. Gao's main research interest is in Dataflow Models and their applications in High-Performance Computing Systems, focusing on Architectures, Programming Models, Compilers, and Runtime Systems, addressing data and compute intensive problems.

Due to their unique knowledge and expertise in Parallel Computation based on Dataflow Models and their extension, Dr. Gao and his research group has led or participated in a large number research projects in supercomputing systems sponsored by the NSF, DARPA, DOE, DOD, and other US and Canadian government agencies and leading computer industry organizations. These projects include the *Hybrid Technology Multithreaded Architecture –HTMT* (DARPA, 1997-99), one of the world's first Petaflop architecture projects based on many-core chip technology; the *Next Generation Software - NGS* (NSF, 2001-2005, 2005-2008); and the *Ubiquitous High Performance Computing – UHPC* (Intel-led, DARPA, 2010-2012). Currenty, Dr. Gao and his research group are part of the *Traleika Glacier* project, the DOE X-Stack software project for Exascale systems (Intel-led, 2012-15); on *Teraflux*, the European Commission project for Exploiting Dataflow Parallelism in Teradevice Computing (EU, 2012-14), and a number of others.

Dr. Gao has published over 270 papers in peer-reviewed international journals and conferences, has co-initiated several top international conferences (such as PACT, CASES), and has served as member of program/steering/organization committees in many prestigious international conferences and workshops. He has also been a keynote/invited speaker in a large number of international meetings and member of the editorial boards of several international journals. Dr. Gao's contributions have been recognized throughout the world, being cited in over 6300 publications (*source*: Google Scholar, April 2013).

Dr. Gao's expertise and vision have also been translated to the industry. He is the Chairman and one of the founders of ET. International Inc. http://www.etinternational.com/ (a spin off from the University of Delaware in 2000), which has successfully delivered end-to-end system

software solutions powering up the IBM Cyclops-64 supercomputer (one of the first supercomputers based on large-scale many-core chip technology in the world), as well as *SWARM* (SWift Adaptive Runtime Machine), a novel runtime system inspired by Dataflow Models.