Intel Selects Georgia Tech as Site for Next Parallel Computing Center

Intel

As modern computer systems become more powerful, utilizing as many as millions of processor cores in parallel, Intel is looking for new ways to efficiently use these high performance computing (HPC) systems to accelerate scientific discovery. As part of this effort, Intel has selected Georgia Tech as the site of one of its Parallel Computing Centers.

Modern computing systems, to meet scientific demands of the future, cannot rely solely on the expanded computing power of hardware but also need algorithms and software that can efficiently use massive amounts of parallelism. Intel is creating Intel Parallel Computing Centers [1] (IPCCs) at leading institutions in HPC research to promote the modernization of essential application codes to increase their parallelism and scalability.

The IPCC at Georgia Tech will develop new parallel algorithms and software for quantum chemistry and biomolecular simulation. Research will target large-scale computer systems using Intel Xeon Processors and Intel Xeon Phi coprocessors. The center will also develop new curricular materials to equip future computer scientists with the skills to fully realize the capabilities of parallel computing resources for scientific applications.

“We're thrilled for Georgia Tech to be named as the next IPCC,” said Edmond Chow [2], associate professor and principal investigator of the new IPCC. “In the College of Computing, we tackle large-scale problems with a holistic approach, combining high-performance computing with deep knowledge in scientific applications, as well as novel algorithms based in applied mathematics. This collaboration with Intel gives us access to their significant expertise in hardware systems and their optimization, and allows us to innovate in a multi-disciplinary way that we could not do before.”

“Georgia Tech is doing top-notch research in high performance computing,” said Pradeep Dubey, Intel fellow and director of the Intel Parallel Computing Lab. “Intel has had a long history of productive collaboration with the School of Computational Science and Engineering. We expect research at this IPCC to significantly advance the capabilities of supercomputers as they approach the frontiers of Exascale computing.”

Links:
[1] https://software.intel.com/en-us/articles/intel-parallel-computing-centers
[2] http://www.cc.gatech.edu/%7Eechow/