Illinois Researcher Named 2010 CUDA Fellow by NVIDIA

Laurie Talkington, CUDA Center

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John E. Stone, Sr. Research Programmer for the Theoretical and Computational Biophysics Group in the University of Illinois Beckman Institute for Advanced Science and Technology, is among three research and academic leaders appointed to the NVIDIA CUDA Fellows Program in 2010. The program recognizes early adopters of the CUDA™ architecture who have made exceptional advances in the use of GPUs in high-performance computing. The program also recognizes their efforts to promulgate the benefits of GPU computing.

Also named to the honor are Prof. Dan Negrut, University of Wisconsin, Madison, and Dr. Ross Walker, San Diego Supercomputer Center and University of California, San Diego.

“Each of these individuals has demonstrated a passion and commitment to leveraging CUDA and the power of GPU computing to help solve some of the worlds’ most challenging computational problems,” said Bill Dally, chief scientist at NVIDIA.

Stone is well known as the lead developer of VMD, a high-performance molecular visualization tool used by researchers around the world. His research interests and consulting services also cover parallel processing, computer graphics, ray tracing, haptics, and virtual environments.

According to group director Prof. Klaus Schulten, “John Stone is the father of VMD, an extremely gifted and visionary software developer, without whom VMD would simply not exist. He has collaborated with faculty, postdocs, and students to turn VMD into a tool to think, used by over 140,000 life scientists all over the world. He incorporated into VMD the best technology of the day, in particular, the very first general-purpose GPU computing.”

Stone’s research in applying CUDA to molecular modeling applications has contributed substantially to the University of Illinois being recognized as a worldwide leader in parallel computing. For that reason, NVIDIA recognized Illinois as the first CUDA Center of Excellence in 2008. Stone serves as associate director of the center, with Prof. Wen-mei Hwu, research professor in Illinois’s Coordinated Science Laboratory, as director.

“John’s contribution to the CUDA Center of Excellence at Illinois and the GPU computing community in general goes far beyond his work in molecular modeling and visualization,” said Hwu. “His teaching on algorithm insights has benefited many research fields in which computation algorithms are similar those in VMD. We are gratified to see John’s important work recognized with this honor.” In fact, Stone travels the world to deliver presentations at conferences, universities, and national laboratories.

Stone is also a popular speaker and sought-after expert for trade media, with recent appearances on CNN, and in Wired and Money Magazine. He is the author of three book chapters, five short articles, 22 research publications, and 49 presentations, talks, and demonstrations. Stone currently sits on the editorial board of the Journal of Molecular Graphics and Modelling and serves on the technical program committees for several leading conferences on high-performance computing, computational biology, and computer graphics. He holds BS and MS degrees in Computer Science from the University of Missouri-Rolla, and has been at Illinois since 1998.

The CUDA Fellows Program was established in 2009 to recognize, reward and assist researchers engaged in exceptional work in utilizing the CUDA architecture within their disciplines or geographies. Each CUDA Fellow receives the latest NVIDIA® Tesla™ GPUs, support for their GPU computing research, opportunities to share their

expertise at universities and technical conferences around the world, access to NVIDIA technical staff, and priority in receiving early releases of NVIDIA GPU hardware and software.