The 2014 Visualization Technical Achievement Award

Claudio T. Silva

The 2014 Visualization Technical Achievement Award goes to Claudio T. Silva, New York University Polytechnic School of Engineering, in recognition of seminal advances in geometric computing for visualization and for contributions to the development of the VisTrails data exploration system.

Claudio has made seminal contributions to many areas of visualization and graphics, including point-based modeling, surface reconstruction, isosurface generation, out-of-core and streaming visualization techniques, and unstructured volume rendering. Having participated in interdisciplinary projects, his contributions have had impact in multiple scientific domains. He has also developed widely-used visualization and analysis tools, including the open-source VisTrails system.

The IEEE Visualization & Graphics Technical Community (VGTC) is pleased to award Claudio T. Silva the 2014 Visualization Technical Achievement Award.

Claudio T. Silva
New York University
Polytechnic School of
Engineering
Award Recipient 2014

Biography

Claudio Silva is a native of Brazil where he studied mathematics at the Federal University of Ceara. He moved to the US in 1990 to study computer science at Stony Brook University. Since then, he has held positions in academia and industry, including: Research Staff Member at IBM Research, Principal Member of the Technical Staff at AT&T Labs, Full Professor at the University of Utah. He is currently Professor of Computer Science and Engineering at the School of Engineering, New York University, where also holds appointments at the Courant Institute, the Center for Data Science, and the Center for Urban Science and Progress. Claudio is an IEEE Fellow.

Claudio's research lies in the intersection of visualization and geometric computing. He has developed techniques for rendering unstructured grids, volume visualization, visibility algorithms, point set modeling and rendering, surface reconstruction, out-of-core and streaming algorithms, provenance-enabled workflow systems, and analysis and visualization of urban data. His contributions go beyond computer science and have had impact in other scientific domains.

Claudio has advised 15 PhD and 8 MS students, and mentored 6 post-doctoral associates. He has published over 200 peer reviewed journal and conference papers, is an inventor of 11 US patents, and co-authored 12 papers that have received "Best Paper Awards" (including honorable mention) on visualization and geometric computing conferences. He has received four IBM Faculty Awards. The "VisTrails Provenance Plugin for Autodesk Maya", a commercial product based on his research, received a Utah Innovation Award in 2009. He has received research awards from the National Science Foundation, the Department of Energy, the National Institutes of Health, as well as industrial funding.

Claudio has served on several editorial boards of journals in visualization, graphics, and geometric computing, including the IEEE *Transactions on Visualization and Computer Graphics* (*TVCG*), *The Visual Computer*, *Computer and Graphics*, *Graphical Models*, and the ACM *Transactions on Spatial Algorithms and Systems*. He is also the co-editor of the *Visualization Corner* in the AIP/IEEE *Computing in Science and Engineering* magazine. He has taken on different roles for the IEEE Visualization conference, from student volunteer to chairing the conference in 2010 and serving as papers chair in 2005 and 2006. Besides chairing and organizing symposia and workshops, Claudio has served on over 100 program committees for major conferences in the fields of visualization, geometric computing, and computer graphics.

Award Information

The IEEE VGTC Visualization Technical Achievement Award was established in 2004. It is given every year to recognize an individual for a seminal technical achievement in visualization. VGTC members may nominate individuals for the Visualization Technical Achievement Award by contacting the awards chair, Larry Rosenblum, at vgtc-vis-awards@vgtc.org.