IEEE Conference on Visual Analytics Science and Technology 2011

Providence, Rhode Island, USA

23 - 28 October, 2011

Proceedings

Edited by
Silvia Miksch
Matt Ward

IEEE computer society IEEE vgtc

SPONSORED BY IEEE COMPUTER SOCIETY VISUALIZATION AND GRAPHICS TECHNICAL COMMITTEE

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IEEE Catalog Number: CFP11VAS-PRT
ISBN: 978-1-4673-0013-1

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Preface

Message from the Conference and Paper Chairs

The IEEE Visual Analytics Science and Technology (VAST) Conference continues to develop and grow. Each year brings new researchers to the field and produces important advances in the theory and practice of visual analytics. VAST is now in its sixth year, and it is the second year as an IEEE Conference. The presented work demonstrates significant growth and maturation of the visual analytics community. We received 80 submissions and were able to accept 26 papers into the program.

The conference program reflects the breadth of research in the visual analytics community. Paper sessions cover such areas as foundations of the analysis process; tree, network and social network analysis; support for sensemaking and collaborative analysis; visual computational analysis of multivariate data; space and time; and many applications of visual analytics capabilities such as in the biomedical field, risk management, text and document analysis. To select this year's program, an international program committee of 38 experts carefully considered and reviewed the papers through a two-cycle review process instituted this year. Each paper was assigned to primary and a secondary reviewers from this committee. The primary and secondary reviewers assigned one more tertiary reviewer to each paper so that at least four reviews were provided for all papers. Based on these reviews, the paper co-chairs selected the papers conditionally first. The primary reviewer had to evaluate the revised papers carefully in the second review cycle. Finally, paper co-chairs accepted 26 papers and organized the program sessions. We are grateful to the International Program Committee and the reviewers for their contributions to a successful review process.

The Best Paper for 2011 was chosen by an Award Selection committee composed of three members who reviewed the top papers and their peer reviews. We congratulate Gennady Andrienko, Natalia Andrienko, Cristophe Hurter, Salvatore Rinzivillo, and Stefan Wrobel for their paper ``From Movement Tracks through Events to Places: Extracting and Characterizing Significant Places from Mobility Data." The paper presents novel ways for analyzing large-scale spatio-temporal data resulting from tracking movement around a city. Given the growth in sensor networks and GPS-based tracking, the committee felt this work was innovative and timely. The committee also selected three honorable mentions, noted in the table of contents.

The VAST Challenge continued to showcase the application of visual analytics tools and methods to realistic problems. The 2011 Challenge centered on a threat scenario concerning a citywide pandemic and network intrusion of a trucking company. This year brought large-scale datasets such as the million-record-plus epidemic data set. The Challenge used the successful format of mini-challenges that each deal with unique data types and elements of the scenario, and a grand challenge that ties the story together. Teams could choose to tackle one or more mini-challenges, or attempt the grand challenge that connects all three. The three mini-challenges involved text analysis of microblogs in the fictional city Vastopolis, analysis of network logs for a trucking company concerning a possible hacking attempt, and analysis of newspaper articles that would point to the threats facing Vastopolis. In 2011, 56 submissions were received; five of these entrants took on the grand challenge. Submissions came from 11 countries and a good number of submissions came from student teams. The Challenge continued to help test the current state of visual analytics systems and prompt technology development in new areas. As of this writing, the 2011 challenge data has been downloaded by over 671 unique registrants. The 2011 data, together with previous Challenge data sets, will continue to be available as a valuable resource for the visual analytics community. The VAST Challenge is the product of significant time and effort by the co-chairs: Georges Grinstein, Mark Whiting, Kristin Liggett and Danko Nebesh, and especially the teams at the University of Massachusetts Lowell and the Pacific Northwest National Laboratory who generated the mini-challenge data sets. We congratulate the organizers and participants for an exciting VAST Challenge 2011.

The VAST poster program continues to serve a vital role as a venue for new work and for material not yet mature enough to warrant a full paper. Twenty-one poster submissions were received, of which 18 were accepted. In addition to presentation during the VAST poster session, the two-page extended abstracts that accompany each poster are published in the proceedings. The VAST posters co-chairs, Jo Wood and Remco Chang, did an exceptional job of organizing the peer review process, in which each poster was assigned to at least two reviewers.

We thank the presenters, attendees, and organizing committee members of VAST 2011 for another successful conference.

William Pike and Jonathan C. Roberts
VAST 2011 Conference Chairs

Silvia Miksch and Matt Ward
VAST 2011 Paper Chairs

IEEE Visualization and Graphics Technical Committee (VGTC)

http://tab.computer.org/vgtc

Mission

The IEEE Visualization and Graphics Technical Committee (VGTC) is a formal subcommittee of the Technical Activities Board (TAB) of the IEEE Computer Society. The VGTC provides technical leadership and organizes technical activities in the areas of visualization, computer graphics, virtual and augmented reality, and interaction.

The VGTC sponsors not only the annual VisWeek and Virtual Reality conferences, but also many focused symposia and conferences including EuroVis, 3D User Interfaces, VAST, ISMAR, Volume Graphics, PacificVis, and Haptics.

Awards

To recognize its members for their outstanding technical accomplishments, the VGTC established a series of technical awards in 2004. The awards honor outstanding technical achievements in visualization and virtual reality. The VGTC awards chair for visualization is Bill Lorensen, and the awards chair for virtual reality is Larry Hodges.

National Initiatives

The VGTC is actively involved in national initiatives that study and promote the immediate and long-range challenges in visualization and computer graphics and related research areas. For more information visit our web page at http://vgtc.org.

Getting Involved

Membership in the VGTC is open to all individuals interested in visualization, virtual reality and computer graphics at a professional level. There are no dues for VGTC membership and no IEEE membership requirements.

Web Site

Visit the VGTC web site at http://vgtc.org. It offers information about how to join, VGTC activities, awards, national initiatives, conferences and symposia, and contains a link to a comprehensive membership directory.

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