

Curriculum Vitae
of
Luca Grilli

Dipartimento di Ingegneria Elettronica e dell'Informazione
Università di Perugia
Via G. Duranti 93, 06125 Perugia
+39-075-585-3676 (voice)
+39-075-585-3654 (fax)
luca.grilli@diei.unipg.it
<http://www.diei.unipg.it/~grilli>

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SHORT BIOGRAPHY

Luca Grilli received the PhD in Computer Science from the University of Perugia in 2007. He is currently a Post Doc at the Dipartimento di Ingegneria Elettronica e dell'Informazione of the University of Perugia. His research interests include graph drawing, information visualization, algorithm engineering, information retrieval, and computational geometry. He collected about 10 publications in the above areas. He served as external referee of international conferences on the above topics, including the International Symposium on Graph Drawing and the Workshop on Algorithms and Complexity. From April 2007 he teaches “Computer Graphics” for the Engineering Faculty of the University of Perugia.

Luca's main career milestones are as follows.

- 2003: Laurea Degree in Electronic Engineering, University of Perugia .
- 2007: Ph.D. in Computer Science at the University of Perugia.
- 2007: Post-doc at the University of Perugia.

EDUCATION

2003: Laurea Degree in Electronic Engineering, at the University of Perugia.

2007: Ph.D in Computer Science, at the University of Perugia. – Title of the thesis: “Visualization Algorithms and Systems for the Analysis of Complex Data”. Advisor: Prof. Giuseppe Liotta.

RESEARCH INTERESTS

The research interests of Luca Grilli are in the general area of Algorithm Engineering, with main attention to the following application fields:

- Graph Drawing
- Information Visualization
- Information Retrieval
- Computational Geometry

His main research contribution is in the design and implementation of Web Meta-Search Clustering Engines, that is, systems that help users in retrieving relevant data from the World Wide Web. These systems collect the results returned by a classical search engine in response to a user's query, and then classify them into relevant semantic clusters for the end-users.

In this field Luca Grilli introduced new clustering methodologies and novel visualization paradigms for presenting and browsing the semantic clusters. His contribution on this topic is therefore an intriguing mix of algorithm engineering, information retrieval, and graph visualization techniques.

Other research results are concerned with the study and the design of algorithms to automatically draw graphs or to characterize their relevant topological and geometric properties for specific applications like, e.g., computer and ad-hoc wireless networks.

PUBLICATIONS

International Journals and Conferences

- E. Di Giacomo, L. Grilli, G. Liotta, "Drawing Bipartite Graphs on two Parallel Convex Curves", Journal of Graph Algorithms and Applications (to appear).
- E. Di Giacomo, L. Grilli, W. Didimo, G. Liotta, P. Palladino, "WhatsOnWeb+: An Enhanced Visual Search Clustering Engine", Proc. of the Pacific Symposium On Visualization (PacificVis 2008), IEEE (to appear)
- E. Di Giacomo, L. Grilli, W. Didimo, G. Liotta, "Graph Visualization Techniques for Web Clustering Engines", IEEE Transactions on Visualization and Computer Graphics, 13(2), pp. 294-304, 2007.
- E. Di Giacomo, L. Grilli, G. Liotta, "Drawing Bipartite Graphs on two Curves", Symposium on Graph Drawing (GD 2006), LNCS vol. 4372, pp.381-385, Springer-Verlag, 2006.
- P.F. Cortese, G. Di Battista, F. Frati, L. Grilli, K.A. Lehmann, G. Liotta, M. Patrignani, I.G. Tollis, F. Trotta, "On the Topologies of Local Minimum Spanning Trees", Proc. of CAAN 2006, third Workshop on Combinatorial and Algorithmic Aspects of the Networks, LNCS, Springer-Verlag, pp. 31-44, 2006.

- E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta: “WhatsOnWeb: Using Graph Drawing to Search the Web”, Symposium on Graph Drawing (GD 2005), LNCS vol. 3843, pp. 480-491, Springer-Verlag, 2006.
- E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta: “A Topology-Driven Approach to the Design of Web Meta-search Clustering Engines”, SOFSEM 2005, LNCS vol.3381, pp.106-116, Springer-Verlag, 2005.

Technical Reports and PhD Thesis

- L. Grilli, “Visualization Algorithms and Systems for the Analysis of Complex Data”, PhD Thesis, 2007.
- E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta, “A Topology-driven Approach to the Design of Web Meta-Search Clustering Engines” TR-004-04 Technical Report, Dipartimento di Ingegneria Elettronica e dell’Informazione.
- P.F. Cortese, G. Di Battista, F. Frati, L. Grilli, K.A. Lehmann, G. Liotta, M. Patrignani, I.G. Tollis, F. Trotta, “On the Topologies of Local Minimum Spanning Trees”, TR-001-06 Technical Report, Dipartimento di Ingegneria Elettronica e dell’Informazione.

TEACHING

2007-present. “Computer Graphics” at the Engineering Faculty of the University of Perugia.

2006-present. Seminars for an official course on “Information Visualization” at the Engineering Faculty of the University of Perugia.

2005-present. Seminars for an official course on “Object Oriented Programming” at the Engineering Faculty of the University of Perugia.

2007. “Technologies for Information Systems” at the University of Perugia, for a course on teaching qualification.

OTHER

- During his PhD course, he spent 3 months at NICTA (National Information Communication Technology Australian) research center of Sydney, working on Visualization Information topics under the supervision of Dr. Seok-hee Hong.
- He got a 6 months consulting contract from the Engineering Faculty of the University of Perugia for the design and the implementation of an information system about teaching and learning.
- He cooperated to the European Research Project: “Health for All in Latin America - @LIS Project” for the development of an e-learning platform.