Francesco Cauteruccio

Email: cauteruccio@mat.unical.it

Education

Ph.D. in Mathematics and Computer Science at Department of Mathematics and Computer Science, *University of Calabria* (Rende, Italy), November 2014 - November 2017. Date of defense: January 2018.
Thesis: *Generalizing Identity-Based String Similarity Metrics: Theory and Applications*, supervisor Prof. Giorgio Terracina.

Visiting Ph.D. student at **CERMEP - CREATIS**, *Université Claude Bernard Lyon 1* (Lyon, France), September 2015 - January 2017.

Master's Degree in **Computer Science** with score **110/110** ***Summa cum Laude*** at *University of Calabria* (Rende, Italy), January 2012 - July 2014.
Thesis: *Definition, Implementation and Validation of Multi-Parameterized Edit Distance*, advisor Prof. Giorgio Terracina.

Bachelor's Degree in **Computer Science** with score **104/110** at *University of Calabria* (Rende, Italy), 2008-2011.
Thesis: *Automatic pattern induction techniques on semi-structured data*, advisor Prof. Giovambattista Ianni.

Graduation from ITCG Diamante (CS, Italy) with score 95/100, September 2003 - June 2008.

Publications

1. F. Cauteruccio, D. Consalvo and G. Terracina, *High Performance Computation for the Multi-Parameterized Edit Distance*, 26th Euromicro International Conference on Parallel, Distributed and Network-based Processing, Cambridge, UK, 2018, IEEE Computer Society. Forthcoming.

2. F. Cauteruccio, C. Stamile, G. Terracina, D. Ursino and D. Sappey-Marinier, *Integrating QuickBundles into a Model-Guided Approach for Extracting "Anatomically-Coherent" and "Symmetry-Aware" White Matter Fiber-Bundles*, pages 39–46. Springer International Publishing, Cham, 2018.

3. F. Cauteruccio, P. Lo Giudice, L. Musarella, G. Terracina and D. Ursino, *A "homophily-guided" approach to uniformly handling structured, semi-structured and unstructured sources in a data lake.* Submitted for publication. Available from the Authors. 2017.

4. F. Cauteruccio, P. Lo Giudice, G. Terracina, D. Ursino, N. Mammone and F. C. Morabito, *A new string-based and network-based approach to investigating neurological disorders.* Submitted for publication. Available from the Authors. 2017.

5. F. Cauteruccio, P. Lo Giudice, G. Terracina, and D. Ursino, *Applying network analysis for extracting knowledge about environment changes from heterogeneous sensor data streams.* In 26th Italian Workshop on Neural Networks. 2017.

6. F. Cauteruccio, G. Terracina and D. Ursino, *Algorithms for strings and sequences: Searching motifs.* In Encyclopedia of Bioinformatics and Computational Biology. Elsevier. 2017. To appear.

7. C. De Farias, L. Pirmez, F. Delicato, P. Pires, A. Guerrieri, G. Fortino, F. Cauteruccio and G. Terracina, *A Multisensor Data Fusion Algorithm Using the Hidden Correlations in Multiapplication wireless sensor Data Streams*, Proc. of the 14th IEEE International Conference on Networking, Sensing and Control (ICNSC 2017), 96-102, Calabria, Italy, 2017, IEEE Systems, Man, and Cybernetics Society.

8. F. Cauteruccio, G. Terracina and D. Ursino. *Generalizing identity-based string comparison metrics: Framework and techniques.* Submitted for publication. Available from the Authors. 2016.

9. F. Cauteruccio, C. Stamile, G. Terracina, D. Ursino, and D. Sappey-Marinier, *Integrating QuickBundles into a model-guided approach for extracting "anatomically-coherent" and "symmetry-aware" White Matter fiber-bundles*, Multidisciplinary Approaches to Neural Computing. Smart Innovation, Systems and Technologies, 39-46, ch 4, vol 69, 2018. Springer, Cham.

10. F. Cauteruccio, C. Stamile, G. Terracina, D. Ursino, D. Sappey-Marinier, *An automated string-based approach to extracting and characterizing White Matter fiber-bundles*, Computers in Biology and Medicine 77, 64-75, 2016.

11. F. Cauteruccio, C. Stamile, G. Terracina, D. Ursino, D. Sappey-Marinier, *Improving QuickBundles to Extract Anatomically Coherent White Matter Fiber-Bundles*, International Conference Image Analysis and Recognition, 633-641, 2016.

12. C. Stamile, F. Cauteruccio, G. Terracina, D. Ursino, G. Kocevar, and D. Sappey-Marinier, *A Model-Guided String-Based Approach to White Matter Fiber-Bundles Extraction*, Proc. of the 2015 International Conference on Brain & Health Informatics (BIH'15), London, UK, 2015, Lecture Notes in Computer Science, Springer-Verlag, 2015.

13. F. Cauteruccio, C. Stamile, G. Terracina, D. Ursino, D. Sappey-Marinier. *An Automated String-Based Approach to White Matter Fiber-Bundles Clustering*, Proc. of the International Joint Conference on Neural Networks (IJCNN 2015), Killarney, Ireland, 2015, IEEE Computational Intelligence Society, 2015.

14. F. Cauteruccio, G. Fortino, A. Guerrieri, G. Terracina, *Discovery of hidden correlations between heterogeneous wireless sensor data streams*, Proc. of 7th International Conference on Internet and Distributed Computing Systems (IDCS 2014), 383-395, Calabria, Italy, 2014, Lecture Notes in Computer Science, Springer-Verlag, 2014.

15. F. Cauteruccio and G. Ianni. *A domain meta-wrapper using seeds for intelligent author list extraction in the domain of scholarly articles*, 17th International Conference on Theory and Practice of Digital Libraries, TPDL 2013. LNCS 8092, pp. 313–318, 2013.

Academic Experience

Teaching Assistant for the course **Algorithms and Data Structures** at Department of Mathematics and Computer Science, *University of Calabria*, September 2014 - *now*.

Teaching Assistant for the course **Architetture e Tecnologie Web** at Departments of Humanities, *University of Calabria*, September 2017 - *now*.

Academic Tutor for the following classes: **Formal Languages and Compilers**, **Operating Systems and Networking**, **Foundations of Computer Science (C++)** and **Object Oriented Programming (C++)** at Department of Mathematics and Computer Science, *University of Calabria*, May 2014 - September 2014 and September 2017 - *now*.

Employment

Web Developer, Web Designer, UI Designer and UX Engineer in *Center of Neurological Imaging (CNI) Brigham and Women's Hospital - Harvard Medical School* (Greater Boston Area, USA) of SPINE project, August 2012 - January 2013.

Software Analyst, Programmer and UI Designer at *Acs New System SRL di Alessandra Calomino* (Belvedere Marittimo (CS) - Italy) of a project named "Gestione ristorante". The project is a system for in-place mobile restaurant ordering, 2008-2009.

Freelance Web developer and designer, 2004-present.

Projects

Scholar H-Index Calculator
Scholar H-Index Calculator is an addon for Google Chrome and Firefox which enhances Google Scholar results pages by showing a number of bibliometric data computed using the data appearing on video as input. Once installed, the Calculator works transparently when querying Google Scholar: as soon as you make a query, result pages are enriched with a number of useful data (e.g. the h-index computed on the basis of displayed data), and new functions are available. It integrates a module which involves relatively new techniques built by myself in the field of Information Extraction.

Information and download available at
`https://www.mat.unical.it/ianni/wiki/ScholarHIndexCalculator`.

SPINE
SPINE (Structured Planning and Implementation of Neurological Explorations) is a virtual laboratory designed to accelerate scientific discovery in neuroimaging. It is a collaboration with the *Center of Neurological Imaging (CNI)* at *Brigham and Women's Hospital - Harvard Medical School*.