

# NORBERT MAGGI

Curriculum Vitae

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## Biomedical / Clinical Engineer

*Experienced professional with hands-on research experience in biomedical engineering with distinct reference to molecular modelling, computer data processing, and medical data analysis.*

*Demonstrate excellence in conducting research meetings to determine and resolve practices and clinical issues in order to achieve maximum quality outcome.*

*Outstanding leadership, professionalism, integrity, and dedication to advancing the clinical research profession through strong site partnerships.*

## EDUCATION AND CREDENTIALS

### Doctor of Philosophy in Nanotechnology

Doctoral School of Science and Technology for Information and Knowledge at the University of Genoa

### Qualification as Professional Engineer

Master of Science in Electronic engineering  
University of Genoa

### — Foreign Languages —

English: C1: written and reading comprehension; B2 oral and listening comprehension

## PROFESSIONAL EXPERIENCE

### PROFESSIONAL ENGINEER (from 2019)

*Quality assurance manager*  
*Health & safety manager*  
*Data protection officer*

Department of Informatics, Bioengineering, Robotics & Systems Engineering of University - Genoa  
**RESEARCH FELLOW** (2011 to 2018)

Delivered effective operational and research support on research pertaining to implementing testing methods and supervising technicians. Accomplished all the phases of the project based on orders, experiments decision and experimental plan. Led, mentored, and motivated students and presented at Genoa conferences work.

- Reinforced and strengthened research fellow and BSC in Biomedical engineering and MSC in Bioengineering.
- Member of IEEE (US) and Federprivacy (Italy)

## TEACHING & OTHER PROFESSIONAL EXPERIENCE

*Adjunct professor: Informatica con elementi di matematica (academic course Msc in Pharmacy) AY 2023/24*

*Adjunct professor: Informatica (academic course Bsc in Biotechnology) AY 2022/23, 2023/24, 2024/25*

*Support for education: Informatica (academic course Bsc in Biotechnology) AY 2021/22*

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*Support for education: Technology for personalised medicine (academic course Msc in Bioengineering) AY 2021/22, 2022/23*

*Support for education: Laboratorio di Informatica Medica (academic course Bsc in Biomedical Engineering) AY 2021/22, 2022/23, 2023/24*

*Support for education: Biomedical Informatics (academic course Msc in Bioengineering) AY 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19, 2019/20, 2020/21*

*Support for education: Fondamenti di elaborazione di dati e segnali biomedici (academic course Bsc in Biomedical Engineering) AY 2014/15, 2015/16, 2016/17*

*Support for education: Elaborazione di dati e segnali biomedici (academic course Bsc in Biomedical Engineering) AY 2013/14*

*Support for education: Elaborazione di segnali biomedici 1 (academic course Bsc in Biomedical Engineering) AY 2010/11, 2011/12, 2012/13*

*Hotel Manager: Santuario Sant'Anna – Vinadio (CN) 2002 to 2010*

## OTHER SERVICE

**ENROLLED IN THE REGISTER OF ENGINEERS, Genoa (03/03/2008)**

- Holder of driver licence KB, C, D and Driver Certificate of Professional Competence for persons/goods.
- Holder of unlimited sailing and motorboat licence

## PUBLICATIONS

1. V. Iobbi, V. Parisi, A.P. Lanteri, N Maggi; M. Giacomini, G. Drava, G. Minuto, A. Minuto, N.D. Tommasi, A. Bisio, "NMR Metabolite Profiling for the Characterization of Vessalico Garlic Ecotype and Bioactivity against *Xanthomonas campestris* pv. *Campestris*". *Plants* 2024, 13, 1170.
2. V. Iobbi, G. Donadio, A. P. Lanteri, N. Maggi, J. Kirchmair, V. Parisi, G. Minuto, A. Copetta, M. Giacomini, A. Bisio, N. De Tommasi and G. Drava "Targeted metabolite profiling of *Salvia rosmarinus* Italian local ecotypes and cultivars and inhibitory activity against *Pectobacterium carotovorum* subsp. *Carotovorum*", *Front. Plant Sci.*, 15, 2024
3. V. Iobbi, G. Donadio, A. P. Lanteri, N. Maggi, J. Kirchmair, V. Parisi, G. Minuto, A. Copetta, M. Giacomini, A. Bisio, N. De Tommasi, G. Drava, "Metabolite profiling of "Eretto Liguria", an Italian local ecotype of *Salvia rosmarinus*, and antimicrobial activity against *Pectobacterium carotovorum* subsp. *Carotovorum*" *Planta Medica*, 89(14), 1409, 2023
4. M. Giacomini, S. Mora, E. Lazarova, N. Maggi, C. Ruggiero, "Improving data quality in healthcare: medical informatics tools and standards", *GNB2023*, Padova, Italy, 2023
5. Boaglio, C. L. Parra-Calderón, A. Martínez-García, M. J. Escalona-Cuaresma, N. Maggi, D. Coviello, P. Uva, M. Giacomini, "From FAIR4Health Project to 1+ MG Initiative: A Spain-Italy Collaboration", *Studies in health technology and informatics*, 302:386-387, 2023
6. V. Iobbi, V. Santoro, N. Maggi, M. Giacomini, A. P. Lanteri, G. Minuto, A. Minuto, P. Fossa, N. De Tommasi, A. Bisio, G. Drava, "Characterization of sulfur compounds and antiviral activity against Tomato brown rugose fruit virus (ToBRFV) of Italian "Vessalico" garlic compared to other cultivars and landrace", *LWT*, 174, 2023, 114411
7. E. Lazarova, S. Mora, N. Maggi, C. Ruggiero, A. Cosolito Vitale, P. Rubartelli, M. Giacomini, "An Interoperable Electronic Health Record System for Clinical Cardiology", *Informatics*, 9 (2), 47, 2022
8. V. Santoro, N. Maggi, M. Giacomini, A.P. Lanteri, G. Minuto, P. Fossa, G. Drava, N. De Tommasi, A. Bisio, "Short Lecture 7 "Italian "Vessalico" garlic ecotype: characterization of sulfur compounds and antiviral activity against Tomato brown rugose fruit virus (ToBRFV)", *Planta Medica*, 88 (15), 1392, 2022

9. M. Bonetto, N. Maggi, D. Fuschi, A. Venturi, L. Brogonzoli, R. Iardino, M. Giacomini, "Healthcare Insights: Evaluating the Access to the Italian Healthcare System", *Studies in health technology and informatics*, 294, 709-710, 2022
10. R. Gazzarata, N. Maggi, LD Magnoni, ME Monteverde, C. Ruggiero, M. Giacomini, "Semantics Management for a Regional Health Information System in Italy by CTS2 and FHIR", *Studies in health technology and informatics*, 287, 119-123, 2021
11. N. Maggi, A. Boaglio, C. Ruggiero, R. Fancellu, F. Cocchiara, D. Coviello, D. Capanna, M. Giacomini, "Interoperability Standards for Data Sharing as a Basis to Fill in a Tailored EHR for Undiagnosed Rare Diseases", *Studies in health technology and informatics*, 287, 114-118, 2021
12. E. Lazarova, S. Mora, P. Rubartelli, A. Cosolito Vitale, L. Pareto, N. Maggi, C. Ruggiero, M. Giacomini "Integrating an Electronic Health Record System into a Regional Health Information System: An HL7 FHIR Architecture", *Studies in health technology and informatics*, 281, 1087-1088, 2021
13. S. Mora, N. Maggi, C. Ruggiero, A. Venturini, G. Cenderello, D. Fiorellino, A. Pilotto & M. Giacomini, "A Web-Based Data Collection Platform for Frailty Evaluation in Senior HIV+ Patients", *European journal for Biomedical informatics*, 16(2), 3-6, 2020
14. N. Maggi, A.M. Schito, V. Iobbi, A. Bisio, C. Ruggiero & M. Giacomini, "Molecular docking of ursolic acid and Staphylococcus aureus ATPase for antibacterial therapy", 2020 IEEE 20th Mediterranean Electrotechnical Conference (MELECON), 372-375, 2020
15. R. Gazzarata, M. E. Monteverde, C. Ruggiero, N. Maggi, D. Palmieri, G. Parruti & M. Giacomini, "Healthcare Associated Infections: An Interoperable Infrastructure for Multidrug Resistant Organism Surveillance", *Int. J. Environ. Res. Public Health*, 17(2), 465, 2020
16. N. Maggi, L. Douglas Magnoni, C. Ruggiero, R. Gazzarata & M. Giacomini, "A Modular Multipurpose, Parameter Centered Electronic Health Record Architecture", *Advances in Science, Technology and Engineering Systems Journal*, 4 (5), 334-340, 2019.
17. N. Maggi, A. Adornetto, S. Scillieri, ENB Urbina, C. Ruggiero & M. Giacomini "Information Technology System Including Patient Generated Health Data for Cancer Clinical Care and Research" *Studies in health technology and informatics* 264, 1538-1539, 2019
18. N. Maggi, L. Douglas Magnoni, C. Ruggiero, R. Gazzarata & M. Giacomini "Information Technology System Including Patient Generated Health Data for Cancer Clinical Care and Research" *Studies in Health Technology and Informatics*, Volume 261: pHealth 2019, pp. 289 - 293, 2019
19. M. Bonetto, S. Mora, N. Maggi, C. Ruggiero, & M. Giacomini "Standards for the re-use of clinical data in research: the connection of the Liguria HIV network and the CISAI cohort", Paper Id: 164906, *Global Medical Engineering Physics Exchanges/ Pan American Health Care Exchanges (GMEPE/PAHCE)*, 2019
20. N. Maggi, R. Gazzarata, C. Ruggiero, C. Lombardo & M. Giacomini "Cancer precision medicine today: Towards omic information in healthcare systems", *Tumori Journal*, 105 (1) pp. 38 - 46, 2019.
21. S.G. Sukkar, N. Maggi, B.T. Cupillo & C. Ruggiero "Optimizing texture modified foods for oropharyngeal dysphagia: a difficult but possible target?", *Frontiers in nutrition*, 5, 2018.
22. N. Maggi & C. Ruggiero "Surface-protein interaction modelling: an application to marine biofouling", *Sesto Congresso Nazionale di Bioingegneria*, 2018.
23. N. Maggi & C. Ruggiero "Digital Signal Processing Techniques for Identification of Functional Unknown Elements in Ribosomal RNA", 4th IEEE Middle East Conference on Biomedical Engineering (MECBME), 2018.
24. N. Maggi, C. Ruggiero & M. Giacomini "Towards an electronic medical record for precision oncology: information and knowledge management", 4th IEEE International Forum on Research and Technologies for Society and Industry, pp. 703 - 707, 2018.
25. N. Maggi, C. Ruggiero & P. Arrigo "Prediction of potential barcoding sites on ITS1 by wavelet transform", *Journal of Biomolecular Structure and Dynamics*, pp. 814 - 823, 2016.
26. N. Maggi, P. Arrigo & C. Ruggiero "Identifying Functional Unknown Elements in Ribosomal RNA by Digital Signal Processing", *Quinto Congresso Nazionale di Bioingegneria*, 2016.
27. N. Maggi, P. Arrigo & C. Ruggiero "Ribosomal DNA analysis by Wavelet Transform", *ICNAAM-2014*, pp. 1648, 2014.
28. N. Maggi, M. Baroffio, L. Pastorino, S. Crimi, C. Folli, V. Brusasco, & C. Ruggiero, "Self- assembled polyelectrolyte capsule for drug delivery: In vitro evaluation of their interaction with cell", 37rd

- Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2015), pp. 521 - 524, 2014.
29. N. Maggi, P. Arrigo & C. Ruggiero, "Optimize ncRNA targeting: A signal analysis based approach", IFMBE Proceedings, pp. 662 - 665, 2014.
  30. N. Maggi, P. Arrigo, C. Ruggiero "Toll-like receptor structural determinants: Variability analysis by digital signal processing methods", 13th International Conference on Bioinformatics and Bioengineering (BIBE), 2013 IEEE, 2013.
  31. N. Maggi, P. Arrigo & C. Ruggiero "Optimize ncRNA Targeting: A Signal Analysis Based Approach", XIII Mediterranean Conference on Medical and Biological Engineering and Computing , 2013.
  32. N. Maggi, P. Arrigo & C. Ruggiero "Comparative analysis of Rac1 binding efficiency with different classes of ligands: morpholines, flavonoids and imidazoles", IEEE TRANSACTIONS ON NANOBIOSCIENCE, pp. 181 - 187, 2012.
  33. N. Maggi, P. Arrigo & C. Ruggiero "Potential MiRNAs recognition site identification in 3'UTR regions by DSP methods", 34rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2012), 2012.
  34. N. Maggi, P. Arrigo & C. Ruggiero "Analisi di mutazioni della proteina Rac1 mediante Short Time Fourier transform", Terzo Congresso Nazionale di Bioingegneria, 2012.
  35. N. Maggi, P. Arrigo & C. Ruggiero "Drug design for cardiovascular disease: The effect of solvation energy on Rac1-ligand interactions", 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2011), pp. 3237 - 3240, 2011.
  36. N. Maggi, P. Arrigo & C. Ruggiero "SNP analysis of Rac1 For personalized ligand interaction", 32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2010), pp. 1779 - 1782, 2010.
  37. C. Ruggiero, Arrigo P. & Maggi N. "In silico evaluation of nanoparticle cell interaction via human ", 10th IEEE Conference on Nanotechnology (IEEE-NANO), pp. 995 - 998, 2010.
  38. C. Ruggiero, P. Arrigo, N. Maggi, L. Pastorino & F. Caneva Soumetz "Drug design and nanosensing for cardiovascular diseases", Euronanoforum, 2009.
  39. P. Arrigo, N. Maggi, M. Giacomini, M. Sturla, F. Caneva Soumetz, L. Pastorino & C. Ruggiero "A genomic and proteomic based approach to pharmacotherapy for cardiovascular diseases", Advances in Micro, Nano and Molecular Systems, 2008.
  40. P. Arrigo, N. Maggi & C. Ruggiero "In silico screening of Rac1 ligand specificity", 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (IEEE EMBC 2008), 2008.
  41. P. Arrigo, N. Maggi, M. Giacomini, M. Sturla, F. Caneva Soumetz, L. Pastorino & C. Ruggiero "A genomic and proteomic based approach to pharmacotherapy for cardiovascular diseases", 7th International conference on Nano/Molecular Medicine and Engineering (IEEE-NANOMED), 2007.