

Curriculum vitae (updated March 4th, 2022)

PERSONAL INFORMATION

Family name, First name: Bernasconi, Anna

Date of birth: 08/07/1990

Nationality: Italian

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EDUCATION

- 2021 **PhD Degree** (*cum Laude*) in Information Technology, Politecnico di Milano, Italy (PhD supervisors: Prof. Stefano Ceri and Prof. Alessandro Campi)
- 2016 **Master of Science Degree** in Computer Science, University of Illinois at Chicago, USA (Final Grade 3.85/4.00)
- 2015 **Master of Science Degree** in Computer Engineering, Politecnico di Milano, Italy (Final Grade 110/110)
- 2012 **Bachelor of Science Degree** in Mathematical Engineering, Politecnico di Milano, Italy (Final Grade 100/110)

CURRENT POSITIONS

Jan 2022 – pres. **Visiting Researcher** at Universitat Politècnica de València, Spain (6 months)

Nov 2020 – pres. **Post-Doc Researcher**, Politecnico di Milano, Italy

PREVIOUS POSITIONS

- Nov 2016 – Oct 2020 **PhD Student**, Politecnico di Milano, Italy
- Mar 2016 – Oct 2016 **Graduate Research Assistant**, Politecnico di Milano, Topic: Input and output data standardization for the GenoMetric Query Language
- Nov 2014 – Feb 2016 **Junior Business Intelligence Consultant** and Data Warehouse Architect, Quanyca S.R.L., Monza, Italy
- Nov 2013– Dec 2013 **Undergraduate Research Assistant**, University of Illinois at Chicago, Topic: Self-certifying compilers design

AWARDS AND RECOGNITIONS

- 2021 Winner of Dimitris N. Chorafas Foundation 2021 Prize (for the PhD thesis), from the Weizmann Institute of Science and Feinberg Graduate School
- 2021 Recipient of the Springer award (for the PhD thesis), from Politecnico di Milano IT PhD Board of professors

SUPERVISION OF STUDENTS

Co-advisor of 7 Master Theses in Computer Engineering degree, Politecnico di Milano (5 finished, 2 ongoing)

Supervision of 4 Bachelor Interdisciplinary Projects in Computer Engineering degree, Politecnico di Milano (2 finished, 1 ongoing)

Co-supervisor of 2 Doctoral Students in Information Technology, Politecnico di Milano (ongoing)

TEACHING ACTIVITIES

- 2021 – 2022 Teaching Assistant (10 hours) – Data Bases 1 for Engineering of Computing Systems (Bachelor Degree), Politecnico di Milano
- 2021 – 2022 Teaching Assistant (10 hours) – Data Bases (Master Degree in Bioinformatics for Computational Genomics), Politecnico di Milano
- 2021 – 2022 Teaching Assistant (20 hours) – Computer Science Fundamentals for Mathematical Engineering (Bachelor Degree), Politecnico di Milano
- 2017 – 2018 Teaching Assistant (40 hours) – Computer Science Fundamentals for Mathematical Engineering (Bachelor Degree), Politecnico di Milano
- 2016 – 2017 Teaching Assistant (40 hours) – Computer Science Fundamentals for Mathematical Engineering (Bachelor Degree), Politecnico di Milano

TALK AND SEMINARS

- 2022 **Tutorial.** *Conceptual models and databases for searching the genome*. At the International Conference on Conceptual Modeling ICDT/EDBT 2022 (online)
- 2022 **Seminar.** *Data-driven SARS-CoV-2 understanding and hunting (searching for the new Omicron)*. At Politecnico di Milano
- 2021 **Invited Talk.** *Modeling, integrating, and searching processed genomic datasets*. At “Integrating Diverse Datasets Webinar Series” by Front Line Genomics (online)
- 2021 **Tutorial.** *Conceptual models for searching the genome*. At the International Conference on Conceptual Modeling ER 2021 (online)
- 2017 – 2021 **Paper and poster presentations at conferences.** Conferences: ER 2017 (Valencia, ES), SWAT4LS 2018 (Antwerp, NL), ER 2019 (Salvador, BR), ER 2020 (online), REFSQ 2021 (online), ER 2021 (online), ICC 2021 (online), SWAT4HCLS 2022 (online). Workshops: DTMbio@CIKM2018 (Turin, IT), EmpER@ER2019 (Salvador, BR)
- 2019 **Invited Talk.** *Metadata Integration Framework for Genomic Datasets*. At “Challenges in Data-Driven Genomic Computing” Workshop, Como, Villa del Grumello, Italy
- 2019 **Seminar.** *Metadata Integration Framework for Genomic Datasets*. At EPFL, Lausanne, Switzerland
- 2017 **Seminar.** *Data-Driven Genomic Computing: Making Sense of the Signals from the Genome through systematic application design and open data repository*. At ETH Zurich and IBM Zurich, Switzerland (with Stefano Ceri and Pietro Pinoli)

ORGANISATION OF SCIENTIFIC MEETINGS

- 2022 **Chair and co-organizer,** International Workshop on Conceptual Modeling for Life Sciences CMLS 2022 (October 2022, Hyderabad, India) – yet to happen
- 2022 **Chair and co-organizer,** International Workshop on Web Applications for Life Sciences WALs 2022 (July 2022, Bari, Italy) – yet to happen
- 2021 **Chair and co-organizer,** International Workshop on Conceptual Modeling for Life Sciences CMLS 2021 (October 2021, online)
- 2020 **Chair and co-organizer,** International Workshop on Conceptual Modeling for Life Sciences CMLS 2020 (November 2020, online)
- 2020 Co-organizer, Genomic Computing Group “gong-like presentations”, Politecnico di Milano, Italy (February 2020)
- 2019 Organization Member, “Challenges in Data-Driven Genomic Computing” ERC AdG GeCo Workshop, Como, Italy (March 2019)

PARTICIPATION IN EDITORIAL BOARDS AND REVIEWING ACTIVITIES

- 2022 **Track Chair,** 8th IEEE International Conference on Big Data Computing Service and Machine Learning Applications (BigDataService 2022)
- 2022 **Program Committee Member,** 9th International Work-Conference on Bioinformatics and Biomedical Engineering (IWWBIO 2022)
- 2022 – pres. **Guest Editor** for the Special Issue “Bioinformatics: Present and Future challenges” of the BioTech Journal (Publisher: MDPI)
- 2022 – pres. **Supplement Editor** for the BMC Bioinformatics Journal, for “Selected articles from the International Conference on Computational Intelligence Methods for Bioinformatics and Biostatistics (CIBB 2021)”
- 2022 – pres. **Supplement Editor** for the BMC Bioinformatics Journal, for “Selected articles from the 2nd International Workshop on Conceptual Modeling for Life Sciences (CMLS 2021)”
- 2021 **Program Committee Member,** International Conference on Computational Intelligence Methods for Bioinformatics and Biostatistics (CIBB 2021)
- 2021 **Supplement Editor** for the BMC Bioinformatics Journal, for “Selected articles from the 1st International Workshop on Conceptual Modeling for Life Sciences (CMLS 2020)”
- 2021 – pres. **Review Editor** of Frontiers in Systems Biology – Multiscale Mechanistic Modeling
- 2021 – pres. **Reviewer Board Member** of Big Data and Cognitive Computing Journal (Publisher: MDPI)
- 2020 – pres. Reviewer for the following international journals: Advances and Applications in Bioinformatics and Chemistry, Dove Press (ISSN: 1178-6949); Applied Clinical Informatics Journal, Thieme Medical Publishers (ISSN: 1869-0327); Applied System Innovation, MDPI (ISSN: 2571-5577); Briefings in Bioinformatics, Oxford University Press (ISSN: 1477-4054); Frontiers in Medicine, Frontiers Media S.A. (E-ISSN: 2296-858X); Frontiers In Microbiology (E-ISSN: 1664-302X); Information, MDPI (ISSN 2078-2489); International Journal of Electrical and Computer

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

IEEE Student Member 2020, 2021; IEEE Women Society 2021; IEEE Computer Society 2020

MAJOR COLLABORATIONS

June 2021 - pres.	Prof. Matteo Chiara (Università degli Studi di Milano) and Shay Fleishon (Israel Central Virology Laboratory); Topic: Identification of diverging SARS-CoV-2 spatio-temporal mutational patterns
Mar 2021 - pres.	Prof. Oscar Pastor (Universitat Politècnica de València), Prof. Giancarlo Guizzardi (University of Twente), and Prof. Veda Storey (Georgia State University); Topic: Ontologically grounded conceptual modeling
Apr 2020 - Dec 2020	Prof. Silvia Grandi, University of Bologna - Dipartimento di Scienze Statistiche “Paolo Fortunati”, Topic: Geographies of clinical and genomic data for COVID-19
Jan 2019 - Nov 2020	Dr. Claudio Menghi (University of Luxemburg), Prof. Paola Spoletini (Kennesaw State University), and Dr. Alessandro Maria Rizzi (Google), Topic: Formal verification techniques for partial models
Sep 2017 - Mar 2020	Prof. Emanuel Weitschek (Italian National Research Council), Topic: Metadata integration on cancer data from Genomic Data Commons
Jun 2019 - Sep 2019	Prof. Mario Cannataro (Università Magna Graecia), Topic: integrative applications of GenoMetric Query Language using private and public datasets

QUALITY OF SCIENTIFIC AND/OR PROJECT PRODUCTION

Scientific Productivity: 47 publications (34 entries on Scopus, 3522 co-authors according to Scopus, due to participation in papers within a consortium):

- Author/Co-author of 19 international journal papers (9 top ranked Q1 journal papers based on SCIMAGO, two Consortia papers),
- Author/Co-author of 11 scientific publications on peer-reviewed conferences.

Publication Impact (on March 4th, 2022): Google Scholar: h-index 10 citations 429*
Scopus: h-index 8 citations 219

*Note that 125 citations on GS are due to participation to a consortia paper (with the COVID-19 Host Genetics Initiative)

PARTICIPATION/RESPONSIBILITY FOR FUNDED PROJECTS

Project Title	Time Period	Funding Institution	Funding Scheme	Role of the applicant	Budget for the institution
Data-Driven Genomic Computing, ERC Advanced Investigator Grant N. 693174	Nov 2016 – Aug 2021	EU	H2020	Task leader: Data repository and search systems	2.5M Euros
EIT Digital “DATA against COVID-19” program, Innovation Activity ‘Virusurf’ N. 20663	July 2021 – Dec 2021	EIT	H2020	Task leader: User experience and interfaces	172K Euros