DICHIARAZIONE SOSTITUTIVA DI CERTIFICAZIONE (art. 46 e 47 D.P.R. 445/2000) Il sottoscritto Emilio Mastriani, ai sensi e per gli effetti degli articoli 46 e 47 e consapevole delle sanzioni penali previste dall'articolo 76 del D.P.R. 28 dicembre 2000, n. 445 nelle ipotesi di falsità in atti e dichiarazioni mendaci, dichiara che le informazioni riportate nel presente curriculum vitae, redatto in formato europeo, corrispondono a verità.

Emilio Mastriani

Date of birth: 24/01/1974 | **Nationality:** Italian | **Gender:** Male | **Phone number:**

(+86) 13664502721 (Mobile) | **Phone number:** (+39) 3773901584 (Home) |

Email address: emiliomastriani@icloud.com | **Email address:** emiliomastriani@pec.it |

Address: Via Michelangelo Buonarroti, 46, 95030, Pedara (CT), Italy (Home)

WORK EXPERIENCE

2021 – CURRENT Harbin, China
COMPANY OWNER AKEDÀ

As the owner of the AKEDÀ company, the tasks performed are non-continuous and aimed at the needs of the customer. The Pasteur Institute in Shanghai requested the latest orders, therefore I worked in the field of computational virology, and in particular aimed at the development of IT pipelines for the meta-genomic analysis of data. The development and implementation of these projects required skills both in the bioinformatics and purely IT fields finalized to the optimization of the data analysis flow, including DB and parallel tasks in a distributed environment.

Briefly, the most frequently carried out activities in this context are:
1. Identification of client objectives
2. Feasibility analysis
3. Activity planning
4. Scripting Development

2014 – 2021 Harbin, China
BIOINFORMATICS SCIENTIST HARBIN MEDICAL UNIVERSITY

Having worked at the genomic research center of Harbin Medical University for seven years, I have been involved in many activities. In particular, my support as a bioinformatician and data analyst was required both in the initial phase of the genomic study and the final part for the interpretation of the results. In particular, in the initial phase of laboratory tests, a preventive study was desirable to reduce the search space. In the second phase, studies such as those relating to the correlation of gene expression or protein interactions served to confirm/disprove the tests carried out. In such a varied context, in-depth skills were necessary, both biological (interpretation of the problem) and IT (configuration of the calculation system, writing scripts, parallelization of the process, etc.).

The most frequently expected tasks in this context were:
1. Study of the main analysis techniques in the bioinformatics field
2. Gene expression analysis and gene network prediction
3. Secondary structure prediction, thermodynamic analysis
4. Microarray analysis protocol
5. Statistical analysis, development of scripts for biological analysis
6. Network gene prediction, protein prediction, functional analysis, genomic analysis of RNA virus
7. Evolutionary analysis, genomic analysis, RNA secondary structure prediction, protein analysis, prediction of protein-related ontologies

2006 – 2014 Catania, Italy
TECHNOLOGY EXPERT CONSORZIO COMETA

During the period of collaboration with the COMETA Consortium and the University of Catania, I acted as a technologist supporting the creation and implementation of scientific projects using the

aforementioned computing infrastructure. In particular, referring to both the GRID and HPC approaches, depending on the nature of the project. Carrying out this task required in-depth knowledge of the calculation structure, as well as the onboard operating systems and data and process management policies.

During this period the activities carried out were:
1. "Development and application porting Grid infrastructure including high-level user interfaces - Applications to bioinformatics: Computational Models of Interaction cancer - Immune System" (European Project PI2S2) at the University of Catania
2. Agreement of collaboration at the Consortium COMETA for "System Management activities of the computing system HPC-GRID" at the University of Catania
3. Collaboration at the Consortium COMETA for the administration of the supercomputing GRID site, geographically distributed among the Sicilian Universities of Messina, Catania, and Palermo. Support for the porting of scientific applications on the Sicilian Grid Infrastructure at the University of Catania, University of Messina, and University of Palermo

2002 – 2006 Catania, Italy
ICT SYSTEM ADMINISTRATOR COMUNICANDO S.P.A

COMUNICANDO S.P.A was a startup company in the telecommunications field. As such, I have had the opportunity to work as both a system administrator and a developer on Symbian systems. Since the company is very attentive to data security and integrity, as administrator of internal services I had the opportunity to configure a VPN server, SMTP/POP email server, Web server, Samba server on SCP protocol, etc...

Briefly, the tasks carried out in this context were:
1. Developer for telecommunication applications, Software Design Engineer
2. System Administrator and Test Engineer

LANGUAGE SKILLS

Mother tongue(s):   **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2
CHINESE	A2	A1	A2	A2	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

EDUCATION AND TRAINING

2000 Catania, Italy
MASTER DEGREE IN COMPUTER SCIENCE Università degli Studi di Catania

Website http://www.unict.it

2021
CERTIFICATE OF ACCOMPLISHMENT - INTRODUCTION TO COMPUTER SCIENCE AND PROGRAMMING USING PYTHON MITx, Online learning initiative of the Massachusetts Institute of Technology

Website https://mitxonline.mit.edu/

15/11/2020 Roseau , Dominica
PH.D. IN COMPUTATIONAL BIOLOGY Selinus University of Science and Literature

Website https://www.uniselinus.education/

05/05/2020 – 19/05/2020 Italy
CERTIFICATE OF ACCOMPLISHMENT - PYTHON PER DATA SCIENCE Consortium GARR

Website https://learning.garr.it/

2019
CERTIFICATE OF ACCOMPLISHMENT - MATHEMATICS FOR MACHINE LEARNING: LINEAR ALGEBRA
Imperial College London

Website https://www.coursera.org/account/accomplishments/verify/F2RXMZHAFYA6

2013 Bologna, Italy
CERTIFICATE OF ACCOMPLISHMENT - 9TH ADVANCED SCHOOL ON PARALLEL COMPUTING CINECA

Website http://www.cineca.it

2012 Bologna, Italy
CERTIFICATE OF ACCOMPLISHMENT - INTRODUCTION TO GPGPU AND CUDA PROGRAMMING
CINECA

Website http://www.cineca.it

2007 Mariefred, Sweden
CERTIFICATE OF ACCOMPLISHMENT - INTERNATIONAL SUMMER SCHOOL ON GRID COMPUTING
University of Edinburgh and University of Catania

2007 Barcelona, Spain
CERTIFICATE OF ACCOMPLISHMENT - DEISA TRAINING SESSION Barcelona Supercomputing Center

2005 Bologna, Italy
CERTIFICATE OF ACCOMPLISHMENT - L'ABC DELLA PROGRAMMAZIONE SCIENTIFICA CINECA

Website http://www.cineca.it

2006 Catania, Italy
CERTIFICATE OF ACCOMPLISHMENT - ADVANCED COURSE ON PARALLEL COMPUTING AND GRID COMPUTING Astrophysical Observatory of Catania

Website https://www.oact.inaf.it/

29/09/2008 – 06/10/2008 Catania, Italy
CERTIFICATE OF ACCOMPLISHMENT - HIGH PERFORMANCE PARALLEL COMPUTING INAF, INFN, UNICT, CEA, CINECA and COMETA

DIGITAL SKILLS

Scripting BashCMD (Base) │ Python / Bash scripting │ R language and R studio │ C C++ C
Language │ Scripting Languages (Bash, Perl, Awk) │ Linux (Terminal Commands, Bash/Shell) │
Machine Learning │ Parallel computing in HPC environment │ Paralel Programming with MPI

ADDITIONAL INFORMATION

PUBLICATIONS

Virome characterization and identification of a putative parvovirus and poxvirus in bat ectoparasites of Yunnan Province, China

– 2023

One Health, Volume 17, 2023, 100641, ISSN 2352-7714, https://doi.org/10.1016/j.onehlt.2023.100641

Viral diversity in wild and urban rodents of Yunnan Province, China – 2023

Emerging Microbes & Infections, DOI: 10.1080/22221751.2023.2290842

PIMGAVir and Vir-MinION: Two Viral Metagenomic Pipelines for Complete Baseline Analysis of 2nd and 3rd Generation Data
– 2022

Viruses 2022, 14, 1260. https://doi.org/10.3390/v14061260

Molecular genetic methods and computer technologies in the system of epidemiological surveillance of Salmonella infection
– 2021

PH&LE. – 2021;(5):61-66 https://doi.org/10.35627/2219-5238/2021-338-5-61-66

Unsupervised Clustering characterizes the CPG dinucleotides distribution of the Andes hantavirus
– 2021

bioRxiv 2021.02.23.432596; doi: https://doi.org/10.1101/2021.02.23.432596

Isolating SARS-CoV-2 Strains From Countries in the Same Meridian: Genome Evolutionary Analysis
– 2021

JMIR Bioinform Biotech. 2021 Jan 22;2(1):e25995. doi:10.2196/25995. PMID:33497425; PMCID:PMC7837406

HamHeat: A fast and simple package for calculating Hamming distance from multiple sequence data for heatmap visualization
– 2020

bioRxiv 2020.03.26.009258; doi: https://doi.org/10.1101/2020.03.26.009258

Overexpression of IGF2BP3 as a Potential Oncogene in Ovarian Clear Cell Carcinoma – 2020

Front Oncol. 2020 Jan 30;9:1570. doi: 10.3389/fonc.2019.01570. PMID: 32083017; PMCID: PMC7002550

Association of Salmonella virulence factor alleles with intestinal and invasive serovars – 2019

BMC Genomics 2019 May 28;20(1):429. doi:10.1186/s12864-019-5809-8. PMID:31138114; PMCID:PMC6540521.

Microarray-Based MicroRNA Expression Data Analysis with Bioconductor – 2019

Methods Mol Biol. 2018;1751:127-138. doi: 10.1007/978-1-4939-7710-9_9. PMID: 29508294.

Main components of pomegranate, ellagic acid and luteolin, inhibit metastasis of ovarian cancer by down-regulating MMP2 and MMP9
– 2017

Cancer Biol Ther. 2017 Dec 2; doi:10.1080/15384047.2017.1394542. PMID:29173024; PMCID:PMC5718784.

Differential degeneration of the ACTAGT sequence among Salmonella: a reflection of distinct nucleotide amelioration patterns during bacterial divergence
– 2017

Sci Rep. 2017 Sep 8;7(1):10985. doi: 10.1038/s41598-017-11226-9. PMID: 28887484; PMCID: PMC5591236.

Enterolactone has stronger effects than enterodiol on ovarian cancer – 2017

Ovarian Res. 2017 Jul 24;10(1):49. doi: 10.1186/s13048-017-0346-z. PMID:28738876; PMCID:PMC5525236.

Conserved intergenic sequences revealed by CTAG-profiling in Salmonella: thermodynamic modeling for function prediction
– 2017

Sci Rep. 2017 Mar 6;7:43565. doi: 10.1038/srep43565. PMID: 28262684; PMCID: PMC5337935.

SOX7 co-regulates Wnt/β-catenin signaling with Axin-2: both expressed at low levels in breast cancer

Sci Rep. 2016 May 18;6:26136. doi: 10.1038/srep26136. PMID: 27188720; PMCID: PMC4870566.

HAMFAST: Fast Hamming Distance Computation – 2009

WRI World Congress on Computer Science and Information Engineering, doi: 10.1109/CSIE.2009.223

Optimization of Vaccine Schedules using Simulated Annealing – 2008

Bioinformatics, Volume 24, Issue 15, August 2008, https://doi.org/10.1093/bioinformatics/btn260

Towards a personalized schedule with Triplex vaccine – 2008

Lecture Notes in Computer Science, vol 4578. Springer, https://doi.org/10.1007/978-3-540-73400-0_79

Analysis of vaccine's schedules using models – 2007

Cell Immunol. ;244(2):137-40. doi: 10.1016/j.cellimm.2007.03.002. Epub 2007 Apr 17. PMID: 17442286.

Model Deconstruction of an immunoprevention Vaccine – 2006

ICNC 2006. Lecture Notes in Computer Science. Springer, https://doi.org/10.1007/11881223_43

The Stabilization Effect of the Triplex Vaccine – 2006

Applied Artificial Intelligence, pp. 587-592 (2006); https://doi.org/10.1142/9789812774118_0083

Genetic Algorithm against Cancer – 2006

WILF2005, Lecture Notes in Computer Science, Springer, https://doi.org/10.1007/11676935_27

An evolutionary algorithm for the T-constrained variation of Minimum Hitting Set problem – 2002

Year: 2002, Volume: 1, Pages: 366-371 DOI Bookmark: 10.1109/CEC.2002.1006262

TEACHING EXPERIENCE

04/09/2009 – 14/09/2009
Grid Update

National Institute of Nuclear Physics, Catania, Italy

29/09/2008 – 06/10/2008
Training Course on Parallel Computing High Performance

University of Catania, Catania, Italy

26/11/2007 – 29/11/2007
Tutorial on numerical methods for systems of high-performance parallel computing

Dept. of Physics, University of Catania, Italy

REVIEWER FOR JOURNALS

2020 – CURRENT
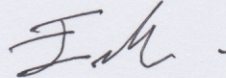**BMC Immunology, ISSN/eISSN 1471-2172**

2019 – CURRENT
JMIR Medical Informatics, ISSN/eISSN 2291-9694

2019 – CURRENT
PLOS ONE, ISSN/eISSN 1932-6203

Harbin (China) , 11/01/2024

RESIDENZA / RESIDENCE / DOMICILE (11)

HARBIN (CHN)

RESIDENZA / RESIDENCE / DOMICILE (11)

RESIDENZA / RESIDENCE / DOMICILE (11)

STATURA / HEIGHT / TAILLE (12)

165

COLORE DEGLI OCCHI / COLOUR OF EYES / COULEUR DES YEUX (13)

MARRONI

3

PASSAPORTO
PASSPORT
PASSEPORT

REPUBBLICA ITALIANA
Tipo. Type. Type. Codice Paese. Code of issuing State. Code du Pays émetteur. Passaporto N. Passport No. Passport N°.

P   ITA   YB2314416

Cognome. Surname. Nom. (1)
MASTRIANI

Nome. Given Names. Prènoms. (2)
EMILIO

Cittadinanza. Nationality. Nationalité. (3)
ITALIANA

Data di nascita. Date of birth. Date de naissance. (4)
24 GEN/JAN 1974

Sesso. Sex. Sexe. (5)   Luogo di nascita. Place of birth. Lieu de naissance. (6)
M   PALERMO (PA)

Data di rilascio. Date of issue. Date de délivrance. (7)
24 FEB/FEB 2018

Data di scadenza. Date of expiry. Date d'expiration. (8)
23 FEB/FEB 2028

Autorità. Authority. Autorité. (9)
MINISTRO AFFARI ESTERI
E COOPERAZIONE INTERNAZIONALE
Firma del titolare. (10)
Holder's signature / Signature du titulaire

P<ITAMASTRIANI<<EMILIO<<<<<<<<<<<<<<<<<<<<<<
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