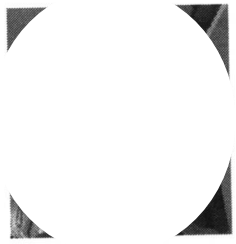
europass Curriculum vitae

PERSONAL INFORMATION

Davide Stefano Sardina



[redacted]

Marital status [redacted]

Date of birth [redacted] | Nationality Italian

WORK EXPERIENCE

02/09/2022-Today

High School Teacher

Ufficio Scolastico Regionale per la Sicilia, IIS Damiani Almeyda-Crispi
Largo Mineo 4, 90145 Palermo, Italy

21/05/2021–16/05/2023

Post-Doctoral Researcher in Bio e Molecular informatics

Fondazione Ri.MED
Via Bandiera 11, 90133 Palermo, Italy

Project: "OBIND: Oncological therapy through Biological Interaction Network Discovery"

Project manager: Ugo Perricone, P.h.D.

- Applications in artificial intelligence and drug discovery

01/09/2020–20/05/2021

ICT Manager

Euro-Mediterranean Institute of Science and Technology
Via Michele Miraglia, 90139 Palermo, Italy

Main responsibilities:
- Software and hardware configuration
- Full stack web development
- Design of hardware infrastructure
- IT consulting

Project: Smart Rehab, PO FESR 08ME00CT270061
Project: 3dlab-Sicilia, PO FESR G69J18001100007
Project: Find a Boarding, PO FESR G75F18000450008
Project manager: Bartolomeo Sammartino, M.S.

31/09/2020–31/12/2020

Bioinformatician

Institute for Biomedical Research and Innovation (IRIB-CNR)
Via Ugo La Malfa 153, 90146 Palermo, Italy

Project: "Role of bioinformatics in allergic pathologies".
Project manager: Carina G. Uasuf, M.D.

16/04/2018–16/04/2020

Bioinformatician

Laboratory of Molecular Oncology and Experimental Dermatology, Policlinico "P. Giaccone"
Via Del Vespro 131, 90127 Palermo, Italy

Project: "Molecular oncology: specific biomarkers for the response to precision therapies".

Project manager: Matilde Todaro, M.D.

15/11/2017–14/04/2018

Temporary Research Fellow

Department of Computer Science, University of Verona, Verona, Italy

Project: "Third-generation sequencing technologies and biological systems modeling combine to detect complex genomic alterations".

Project manager: Rosalba Giugno, P.h.D.

01/04/2017–31/10/2017

Associate member

Institute of molecular bioimaging and physiology (IBFM), Italian National Research Council (CNR), Contrada Pietrapollastra-Pisciotto, 90015 Cefalù, Palermo, Italy

Project: "Development of a methodology for the semi-quantitative analysis of the amyloid deposit of patients underwent amyloid PET with Florbetaben and correlation with clinical data, neuropsychological assessment and cerebrospinal fluid."
Project manager: Giorgio Russo, P.h.D.

05/01/2016–01/06/2016

Visiting Ph.D. student

Institute of Oncology Research (IOR)
Via Vincenzo Vela 6, 6500 Bellinzona, Switzerland
Project: "NGS analysis of ncRNA for lymphoma classification using STAR aligner and Cufflinks."
Project manager: Francesco Bertoni, M.D.

EDUCATION AND TRAINING

2014–2017

Ph.D. in Mathematics and Computer Science

University of Catania, Catania (Italy)

Thesis: "From genotype to phenotype: novel methodologies for the discovery of new pathological biomarkers in human"

2011–2014

Master Degree in Computer Science

University of Catania, Catania (Italy)

Thesis: "Un algoritmo di ricerca per SNAP - Stanford Network Analysis Platform"

Top grade

2006–2011

Bechelor Degree in Computer Science

University of Catania, Catania (Italy)

Thesis: "Realizzazione di un plug-in di eclipse per la generazione di codice ad aspetti che implementa alcuni design pattern"

Top grade

PERSONAL SKILLS

Mother tongue(s): Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B1	B2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Job-related skills: Advanced knowledge of the following languages: R, Java, C++, bash, SQL, php, HTML, Matlab

Good knowledge of: python, pytorch, conda, git, Hadoop

Collecting, managing and integrating 'omics' and clinical data for analysis with statistical and data mining packages and bioinformatic databases.

Data analysis and machine learning applications.

Working in a multidisciplinary environment.

Driving licence A,B

PUBLICATIONS

Journals

Sardina DS, Alaimo S, Ferro A, Pulvirenti A, Giugno R, "A novel computational method for inferring competing endogenous interactions". Brief Bioinform, 2016, doi:10.1093/bib/bbw084

Sardina DS, Micale G, Ferro A, Pulvirenti A, Giugno R, "INBIA: a boosting methodology for proteomic network inference." BMC Bioinformatics, 2018, doi: 10.1186/s12859-018-2183-5

Alongi P, Sardina DS, Coppola R, Puglisi V, Arnone A, Di Raimondo G, Munerati E, Alaimo V, Midiri F, Russo G, Stefano A, Giugno R, Piccoli T, Virgilio V, Midiri M, Grimaldi LME "18F-Florbetaben PET/CT to Assess Alzheimer's Disease: A new Analysis Method for Regional Amyloid Quantification" Journal of Neuroimaging, 2019, doi: 10.1111/jon.12601

Veschi V , Mangiapane LR, Nicotra A, Di Franco S, Scavo E, Apuzzo T, Sardina DS, Fiori M, Benfante A, Colorito ML, Cocorullo G, Giuliante F, Pistone G, Bongiorno MR, Tate CM, Wu X, Rowlinson S, Stancato LF, Todaro M, De Maria R and Stassi G "Targeting chemoresistant colorectal cancer via systemic administration of a BMP7 variant". Oncogene 39, 987–1003 (2020). doi: 10.1038/s41388-019-1047-4

Gregorc V, Lazzari C, Guida A, Bucci G, Graziano P, Cangi MG, Frigè G, Rossi A, Ceol A, Sardina DS, Milella M, Pallocca M, Vigneri P, Fancello L, Buglioni S, Motta G, Biagini T, Rijavec E, Bonfiglio S, Delmonte A, Toschi L, Banna G, Galetta D, Bearz A, Tartarone A, Verderame F, Daidone M, Fanciulli M, Ciliberto G, Pelicci PG, De Maria R, Mazzarella L. Expanding Access to Large-Scale Genomic Mutational Analyses for Patients with Advanced NSCLC in Italy, Journal of Thoracic Oncology, 14 (10), S381 (2019) doi: https://doi.org/10.1016/j.jtho.2019.08.774

Alongi P, Caobelli F, Laudicella R, Stefano A, Comelli A, Vento A, Sardina DS, Ganduscio G, Arnone G, Toia P, Ceci F, Mapelli P, Picchio M, Midiri M, Baldari S, La Galla R, Russo G "Choline PET/CT features to predict survival outcome in high risk prostate cancer: a machine-learning radiomics study", 2019, The Quarterly Journal of Nuclear Medicine and Molecular Imaging (2020) doi: 10.23736/S1824-4785.20.03227-6

Mangiapane LR, Nicotra A, Turdo A, Gaggianesi M, Bianca P, Di Franco S, Sardina DS, Veschi V, Signore M, Beyes S, Fagnocchi L, Fiori ME, Bongiorno MR, Lo Iacono M, Pillitteri I, Ganduscio G, Gulotta G, Medema JP, Zippo A, Todaro M, De Maria R, Stassi G. "PI3K-driven HER2 expression is a potential therapeutic target in colorectal cancer stem cells" Gut (2021) doi: 10.1136/gutjnl-2020-323553

Grimaudo S, Amodio E, Pipitone RM, Maida CM, Pizzo S, Prestileo T, Tramuto F, Sardina DS, Vitale F, Casuccio A, Craxì A. "PNPLA3 and TLL-1 Polymorphisms as Potential Predictors of Disease Severity in Patients With COVID-19" Front. Cell Dev. Biol., 23 June 2021 | doi: 10.3389/fcell.2021.627914

Di Franco S, Bianca P, Sardina DS, Turdo A, Gaggianesi M, Veschi V, Nicotra A, Mangiapane LR, Lo Iacono M, Pillitteri I, van Hooff S, Martorana F, Motta G, Gulotta E, Lentini VL, Martorana E, Fiori ME, Vieni S, Bongiorno MR, Giannone G, Giuffrida D, Memeo L, Colarossi L, Mare M, Vigneri P, Todaro M, De Maria R, Medema JP, Stassi G. "Adipose stem cell niche reprograms the colorectal cancer stem cell metastatic machinery". Nat. Comm. volume 12, Article number: 5006 (2021) doi: 10.1038/s41467-021-25333-9

Sardina DS, Valenti G, Papia F, Uasuf CG "Exploring Machine Learning Techniques to Predict the Response to Omalizumab in Chronic Spontaneous Urticaria". Diagnostics 2021, 11(11), 2150; https://doi.org/10.3390/diagnostics11112150

De Simone G., Sardina DS, Gulotta MR, Perricone U. (2022). KUALA: a machine learning-driven framework for kinase inhibitors repositioning. Scientific Reports, 12(1), 1-16. https://doi.org/10.1038/s41598-022-22324-8

Viesi E, Sardina DS, Perricone U, Giugno R. APDB: a database on air pollutants characterization and similarity prediction. Database (under revision)

Talks

Sardina DS, Micale G, Ferro A, Pulvirenti A, Giugno R, "Correlation between Proteomic Network Inference and Protein-Protein Interaction Networks", (13th International Conference on

Computational Intelligence methods for Bioinformatics and Biostatistics, September 1-3, 2016, Stirling, UK)

Alaimo S, Santoro FF, Sardina DS, Ferro A, Ragusa M, Giugno R, Pulvirenti A, "A web interface to query and filter data from ArrayExpress" (13th International Conference on Computational Intelligence methods for Bioinformatics and Biostatistics , September 1-3 , 2016, Stirling, UK)

OTHER INFORMATION

Certifications

- Eipass Teacher, Certipass, 12/07/2023, 100 hours
- #5 Analisi dei dati e modelli di machine learning attraverso soluzioni block oriented, Scuola Futura, 26/10/2023, 24 hours
- Iot e intelligenza artificiale: competenze del futuro, Scuola Futura, 27/10/2023, 20 hours

Academic position

Research grant. Project: "Le tecnologie di sequenziamento di terza generazione e la modellazione dei sistemi biologici si uniscono per il rilevamento di complesse alterazioni genomiche" (2017-2018). University of Verona, Italy.

Teaching activity

2017-2018
Guest lecturer, Faculty of Social Service, University of Enna "Kore"

Guest lecturer, Faculty of Motor and Sport Activities Sciences, University of Enna "Kore"

Scholarships/Grants

Ph.D Scholarship, Department of Mathematics and Computer Science, University of Catania, Italy, 2015-2017

Research grant, Department of Computer Science, University of Verona, Italy, 2017-2018

Awards

IEEE/CS TCCLS Lipari School Best Poster Award, 2017

Reviewer activity

- Briefings in Bioinformatics
- Frontiers in Plant Science
- BMC bioinformatics
- Bioinformatics
- Scientific Reports

Student tutor activity

Tutor of three students at the University of Verona, Faculty of Computer Science. Project based on the analysis of genomic and neuroimaging data with MENGA software (Rizzo et al. PLoS ONE, 2016, doi: 10.1371/journal.pone.0148744)

Research schools

Lipari School on Computational Life Sciences - Jacob T. Schwartz International School for Scientific Research "Computational Microbiology and Microbiome Based Medicine", July 17-24, 2016, in Lipari Island, Italy.

Lipari School on Computational Complex and Social Systems - Jacob T. Schwartz International School for Scientific Research "Computational Social Science", July 10-17, 2016, in Lipari Island, Italy.

Lipari Summer School on Computational Social Science - Jacob T. Schwartz International School for Scientific Research "Algorithms, Data, and Models for Social and Urban Systems", July 26 - August 1, 2015, in Lipari Island, Italy.

Lipari School on Bioinformatics and Computational Biology - Jacob T. Schwartz International School for Scientific Research "Computational Dynamic Analysis of Biological Processes", July 19-25, 2015, in Lipari Island, Italy.

Lipari School on Computational Complex Systems - Jacob T. Schwartz International School for Scientific Research "Mapping the World: From open data to crowdsourcing and bottom-up society: models, algorithms, and applications". July 12-18, 2015, in Lipari Island, Italy.

Software

RI Snap, link: https://github.com/snap-stanford/snap/tree/master/contrib/unict_univr-risnap

CERNIA, link: https://github.com/dsardina/cernia

KUALA, link: https://github.com/molinfrimed/multi-kinases

Personal interests

Strong interest in system biology, computational biology, neuroscience and psychology. Play guitar, piano and like travelling.

Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae ai sensi dell'art. 13 del D.Lgs 196/2003 e all'art. 13 del Regolamento UE 2016/679 per la protezione delle persone fisiche e giuridiche riguarda al trattamento dei dati personali.

Palermo, 15/04/2024

Davide Stefano Sardina