

Marco Ortu

Curriculum Vitae

Dept. Business and Economic Sciences
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CURRENT POSITION

Assistant Professor at Dept. Business and Economic Sciences, University of Cagliari.

Lecturer of "Statistics" at bachelor degree in Economics.

Co-Founder and CEO of University's spin-off Agile By Chain, start-up specialized in ICT and Blockchain consultancy.

Research interests:

Statistical analysis and modeling applied to textual and social media data, classification and clustering of textual data, topic modeling, and time series analysis.

Scholar: <https://scholar.google.com/>

ORCID: <https://orcid.org/0000-0003-4191-5058>

ResearchGate: <https://www.researchgate.net/profile/Marco-Ortu>

ACADEMIC POSITIONS

2024-present **Assistant Professor (RTT).**

Dept. Business and Economic Sciences, University of Cagliari

2020-24 **Researcher.**

Dept. Business and Economic Sciences, University of Cagliari

2015-2020 **Post Doc.**

Dept. of Electrical and Electronic Engineering,
University of Cagliari.

Research **2019-2024.**

Fellowship Member of the local research group of statistics in the Dept. of Business and Economic Sciences at University of Cagliari.

2012-2019.

Member of the local research group called Agile Group in the Dept. of Mathematics and Computer Sciences at University of Cagliari.

ACADEMIC EXPERIENCE

2020-present **Lecturer of Statistics.**

Dept. Business and Economic Sciences, University of Cagliari

2017-present **Lecturer of Web Analytics and Natural Language Processing.**

Dept. Business and Economic Sciences, University of Cagliari

2023-2024 **Lecturer of Statistical methods for the analysis of textual data.**

PhD in Sustainable Development and Climate Change.
University Institute of Higher Studies of Pavia (IUSS).

2022-present **Lecturer of Quantitative Methods in Economics and Business.**

Dept. Business and Economic Sciences, University of Cagliari

- June-2018 **Lecturer of Hands on lab on Ethereum.**
1ST SCIENTIFIC SCHOOL ON BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGIES.
Pula, Cagliari.
- 2016-2019 **Tutor of Software Engineering.**
Dept. of Mathematics and Computer Science.
University of Cagliari.
- 2012-2016 **Tutor of Computer Science.**
Dept. of Electrical and Electronic Engineering.
University of Cagliari.

RESEARCH PROJECT

- 2023-2024 **AI Research Lead.**
[London SmartBridgeLab](#) conducted in collaboration with Prof. Giuseppe Destefanis (Brunel University) and Prof. Silvia Bartolucci (UCL University). The lab aim to Bridge the gap between cutting-edge technologies and researchers, promoting innovation at the crossroads of complex systems, software engineering, and artificial intelligence.
- 2022-2023 **Scientific Director.**
"Statistical Learning for complex network data" conducted in collaboration with Prof. Giuseppe Destefanis (Brunel University London and Visiting Scientist at the University of Cagliari). The funding for the project was provided by the University of Cagliari (Research and Territory Directorate) for scientific research activities carried out by Prof. Destefanis in collaboration with researchers from the Departments of "Mathematics and Computer Science" and "Economics and Business Sciences." The project was funded by the University of Cagliari under the Excellence Project Law 232/2016, Article 1, paragraphs 314-337.
- 2022-2023 **Scientific Director.**
"Ethereum Development Unraveled: A Blockchain of Communication" (<https://hackmd.io/@giuseppedestefanis/S1VMPWcRi>, Grant ID: FY23-1048), Scientific Director of the local research unit at the Department of Economics and Business Sciences, University of Cagliari, for the research project funded by the Ethereum Foundation's Academic Grants Round 2023. Principal Investigators: Dr. Silvia Bartolucci (UCL, London, UK), Dr. Giuseppe Destefanis (Brunel University, London, UK), Dr. Rumyana Neykova (Brunel University, London, UK), and Dr. Marco Ortu (University of Cagliari, Italy).
- 2022-2025 **Researcher.**
spoke 0 leader "Data platform and knowledge transfer" of the Extended Partnership project "GRINS - Growing Resilient, INclusive and Sustainable," under theme 9 "Economic and financial sustainability of systems and territories," with the grant application marked by the identification code PE00000018, I am responsible for the implementation of the Research and Innovation Program titled "GRINS - Growing Resilient, INclusive and Sustainable."
- 2020-2022 **Researcher.**
"Digital toolbox to assess and visualize development practices in open-source distributed ledger platforms", funded by the UCL Centre for Blockchain Technologies (CBT) 2020 (<http://blockchain.cs.ucl.ac.uk/call-for-proposals-2020/>). Member (External-Investigator) of the local unit of the Department of Economics and Business Sciences, University of Cagliari. Principal Investigator: Prof. Fabio Caccioli, UCL, London, UK.
- 2017-2020 **Researcher.**
Project "ABATA", "Applications of Blockchain for Food Authenticity and Traceability," funded by the Ministry of Economic Development (MISE), starting from April 1, 2020.
- 2015 **Researcher.**
Project "La fabbrica del software: un approccio lean". RAS - Financed by Regional Law 7 August 2007, No. 7 "Promotion of Scientific Research and Technological Innovation in Sardinia." Start date: March 15, 2012. End date: September 14, 2015.
- 2014 **Researcher.**
progetto SIVS (Sistema di Videosorveglianza Intelligente) - P.I.A. 2010 Regione Sardegna.
- 2014 **Researcher.**
progetto W.O.W. (Workflow On Work) - L.R. n.37 art. 4 Regione Sardegna.) - P.I.A. 2010 Regione Sardegna.

- 2013 **Researcher.**
GesDoc Project - Document Management. RAS Project. Unitary Programming 2007-2013 - ERDF 2007/2013 - Measures to support competitiveness and innovation, in accordance with Regional Government Resolution No. 33/41 of 8.08.2013 - Call for Integrated Incentive Packages "Industry, Crafts, and Services" (2013 fiscal year).
- 2013 **Researcher.**
GesDoc Project - Document Management. RAS Project. Unitary Programming 2007-2013 - ERDF 2007/2013 - Measures to support competitiveness and innovation, in accordance with Regional Government Resolution No. 33/41 of 8.08.2013 - Call for Integrated Incentive Packages "Industry, Crafts, and Services" (2013 fiscal year).
- 2013 **Researcher.**
PCE Project (Personal Communication Engine) under the ERDF 2007/2013, Axis VI Competitiveness, operational objectives 6.2.2 and 6.2.3. Research and Development activities within the **DERMONET Project** (Innovation Project in the Telemedicine sector) - P.I.A. 2010, Region of Sardinia.
- 2012 **Researcher.**
DERMONET Project (Progetto di Innovazione nel settore della Telemedicina) - P.I.A. 2010 Regione Sardegna.

VISITING

- Dec. 2019 **Visiting Researcher.**
 Lancaster University
 United Kingdom, Lancaster
Supervisor: Prof. Tracy Hall
Research Interest: Research Collaboration on "statistical modeling of software development activities"
Pubblications:
 1. Fault-insertion and Fault-fixing behavioural patterns in Apache Software Foundation Projects under review in Information and Software Technology (2° round).
- Oct-Nov 2019 **Visiting Researcher.**
 Brunel University
 United Kingdom, London
Supervisor: Prof. Giuseppe Destefanis
Research Interest: Research Collaboration on "statistical modeling of social media events related to cryptocurrencies markets"
Pubblications:
 1. On Technical Trading and Social Media Indicators in cryptocurrencies' Price Classification Through Deep Learning", M Ortu, N Uras, C Conversano, G Destefanis, S Bartolucci, Expert Systems with Applications (2022)
- Oct-Dic 2018 **Visiting Researcher.**
 Brunel University
 United Kingdom, London
Supervisor: Prof. Giuseppe Destefanis
Research Interest: Research Collaboration on "statistical modeling of social media events related to cryptocurrencies markets"
Pubblications:
 1. The butterfly "affect": Impact of development practices on cryptocurrency prices, S Bartolucci, G Destefanis, M Ortu, N Uras, M Marchesi, R Tonelli, EPJ Data Science 9 (2020)
- Oct-Nov 2015 **Visiting Researcher.**
 Brunel University
 United Kingdom, London
Supervisor: Prof. Steve Councill
Research Interest: Research Collaboration on "Human Aspect in Software Engineering"
Pubblications:
 1. Mining valence, arousal, and dominance: possibilities for detecting burnout and productivity?, M Mäntylä, B Adams, G Destefanis, D Graziotin, M Ortu, Proceedings of the 13th international conference on mining software repositories (2016)

Nov 2013-Feb **Visiting Researcher.**

2014 Ecole Polytechnique Montréal
Montréal, QC H3T 1J4, Canada

Supervisor: Prof. Bram Adams

Research Interest: Research Collaboration on "Emotion Analysis in Software Engineering"

Publications:

1. An exploratory qualitative and quantitative analysis of emotions in issue report comments of open source systems, A Murgia, M Ortu, P Tourani, B Adams, S Demeyer, Empirical Software Engineering (2018)
2. Do developers feel emotions? an exploratory analysis of emotions in software artifacts, Alessandro Murgia, Parastou Tourani, Bram Adams, Marco Ortu, Proceedings of the 11th working conference on mining software repositories (2014).

Nov 2013-Feb **Visiting Researcher.**

2014 The Hong Kong University of Science and Technology
Clear Water Bay, Kowloon, Hong Kong.

Supervisor: Prof. Sung Kim

Research Interest: Empirical Analysis of High Impact Defects on Traditional and Mobile Open Source Projects

Publications:

1. Measuring high and low priority defects on traditional and mobile open source software, Marco Ortu, Giuseppe Destefanis, Stephen Swift, Michele Marchesi, Proceedings of the 7th International Workshop on Emerging Trends in Software Metrics (2016).

THESIS SUPERVISOR

Master
Degree

1. Università e Metaverso: le potenzialità e gli sviluppi attraverso l'uso del Natural Language Processing
2. L'AI nel Digital Marketing: il Prompt Engineering
3. L'applicazione del modello fattoriale Fama-French e dell'intelligenza artificiale nel mercato delle criptovalute
4. Esplorando l'Artificial General Intelligence: un'indagine delle capacità di ChatGPT
5. Generative Pre-Trained Transformers di terza generazione e Deep Neural Networks per le applicazioni aziendali: design e sviluppo di due architetture a confronto
6. Scienze Cognitive e Web Analytics: Monitoraggio dell'attività cerebrale durante la navigazione Web
7. Data Science for Internet of Things: Unsupervised anomaly detection on cloud data using Raspberry-Pi
8. Deep Learning in Recommendation Systems - Application in the Musical Domain
9. Competitor Analysis attraverso tecniche di Natural Language Processing
10. I processi di Hawkes per l'identificazione di eventi premonitori nel mercato delle criptovalute: un caso di studio su Reddit
11. Analisi dei fattori d'influenza dei prezzi delle criptovalute
12. Ricerca e analisi della relazione tra il sentimento dei programmatori di bitcoincore e il prezzo del bitcoin
13. Gestione Documentale Nativa Digitale e Innovativa Caso di studio: le pubbliche amministrazioni e il riconoscimento automatico dei documenti digitali
14. Analisi dei portali turistici tramite Natural Language Processing: un caso pratico sulle strutture sarde
15. Stato dell'arte e tecniche di Machine Learning applicate all'e-commerce: caso di studio sui sistemi di raccomandazione
16. L'utilizzo dei sistemi di Deep Learning in ambito aziendale Caso di studio: KPMG e le applicazioni del deep learning all'acquisizione e classificazione dei documenti
17. Open Domain Question Answering system using state-of-the-art Natural Language Processing technology: An industrial case study for real estate startup
18. I Transformers e la loro applicazione alla Topic Modeling attraverso BERTopic: Uno studio comparativo
19. Il progetto NewMos: Il sistema di individuazione e gestione degli incendi attraverso tecniche di machine learning
20. Interpretabilità delle reti neurali profonde: un caso di studio nel Natural Language Processing
21. Analisi e previsione di serie storiche: confronto tra i modelli di statistical learning ARIMA, LSTM, Random forest e Boosting, applicati al caso delle vendite della Corporación Favorita

Master

Degree 22. Miglioramento delle prestazioni dei sistemi di Optical Character Recognition utilizzando i modelli di linguaggio evoluti basati sui Generative Pre-trained Transformer

23. Confronto tra Modelli Autoregressivi, Machine e Deep Learning per la previsione di serie storiche. Caso studio: previsione della domanda energetica nazionale Spagnola

24. Ensemble Recommendation System basato su Deep Learning e Knowledge Graph

Bachelor

Degree 1. Machine Learning a supporto della finanza: implementazione dell'algoritmo XGBoost nella teoria di portafoglio di Markowitz

2. La statistica per il marketing: come le indagini statistiche contribuiscono nelle decisioni strategiche

3. WallStreetBets e Gamestop: il caso che ha sconvolto il mercato

4. L'utilizzo del deep learning nella predizione delle serie temporali: un caso di studio sulle criptovalute

5. Analisi dei dati potenziata dall'intelligenza artificiale: Chat GPT come assistente nella generazione di codice per Python ed R studio

PUBBLICATIONS

Peer
Reviewed
Journals

1. **L Frigau, G Contu, M Ortu, Gauging Airbnb Review Sentiments and Critical Key-Topics by Small Area Estimation, Statistical Methods And Applications (2024), DOI: 10.1007/s10260-024-00764-y.**
2. **M Ortu, M Romano, A Carta, Semi-Supervised Topic Representation Through Sentiment Analysis and Semantic Networks, Big Data Research (2024), DOI: 10.1016/j.bdr.2024.100474.**
3. **L Frigau, M Romano, G Contu, M Ortu, Semi-Supervised Sentiment Clustering on Natural Language Texts, Statistical Methods & Applications, (2023), DOI: 10.1007/s10260-023-00691-4**
4. **M Ortu, L Frigau , G Contu, Topic Based Quality Indexes Assessment Through Sentiment, Computational statistics (2022), DOI: 10.1007/s00180-022-01284-7.**
5. **M Ortu, N Uras, C Conversano, G Destefanis, S Bartolucci, On Technical Trading and Social Media Indicators in Cryptocurrencies' Price Classification Through Deep Learning, Espert System With Applications (2022), DOI: 10.1016/j.eswa.2022.116804.**
6. **G Contu, L Frigau, M Ortu, VGLM Proportional Odds Model to inferhosts' Airbnb performance, Quality and Quantity (2022), DOI: 10.1007/s11135-022-01550-2.**
7. **S Bartolucci, G Destefanis, M Ortu, N Uras, M Marchesi, R Tonelli, The butterfly "affect": Impact of development practices on cryptocurrency prices, EPJ Data Science (2020), DOI: 0.1140/epjds/s13688-020-00239-6.**
8. **S Aufiero, G Ibba, S Bartolucci, G Destefanis, R Neykova, M Ortu, DApps Ecosystems: Mapping the Network Structure of Smart Contract Interactions, EPJ Data Science (2024).**
9. **M Ortu, G Ibba, C Conversano, R Tonelli, G Destefanis (2022), Taxonomic Insights into Ethereum Smart Contracts By Linking Application Categories to Security Vulnerabilities, Scientific Reports (under publication).**
10. **G Contu, C Dessì, C Massidda, M Ortu (2024), Online Reviews Can Explain Coastal And Inland Tourists' Satisfaction, Scientific Reports (under publication).**
11. **R Tonelli, A Pierro, M Ortu, G Destefanis, Smart Contract Metrics: A First Study, PLOS ONE (2023), DOI: 10.1371/journal.pone.0281043.**
12. **M Ortu, G Destefanis, T Hall, D Bowes, Fault-insertion and Fault-fixing Behavioural patterns in Apache Software Foundation Projects, Information and Software Technology 2023, DOI: <https://doi.org/10.1016/j.infsof.2023.107187>.**
13. **M Ortu, S Vacca, G Destefanis, C Conversano, Cryptocurrency ecosystems and social media environments: An empirical analysis through Hawkes' models and natural language processing, Machine Learning With Application (2022), DOI: 10.1016/j.mlwa.2021.100229.**
14. **M Ortu, G Destefanis, D Graziotin, M Marchesi, R Tonelli, How do you Propose Your Code Changes? Empirical Analysis of Affect Metrics of Pull Requests on GitHub, IEEE Access (2020), DOI: 10.1109/ACCESS.2020.3002663.**
15. **L Schirru, F Ledda, MB Lodi, A Fanti, K Mannaro, M Ortu, G Mazarella, Electromagnetic Field Levels in Built-up Areas with an Irregular Grid of Buildings: Modeling and Integrated Software, Electronics (2020), DOI: 10.3390/electronics9050765.**

- Peer
Reviewed Journals
16. M Ortu, G Destefanis, S Counsell, S Swift, R Tonelli, M Marchesi, How diverse is your team? Investigating gender and nationality diversity in GitHub teams, *Journal of Software Engineering Research and Development* (2017), DOI: 10.1186/s40411-017-0044-y.
 17. G Destefanis, M Ortu, S Counsell, S Swift, M Marchesi, R Tonelli, Software development: do good manners matter?, *PeerJ Computer Science* (2016), DOI: 10.7717/peerj-cs.73.
 18. M Ortu, C Conversano, M Marchesi, R Tonelli, S Counsell, G Destefanis, Describing software developers affectiveness through Markov chain models, *Electronic Journal of Applied Statistical Analysis* (2020), DOI: 10.1285/i20705948v13n1p96.
 19. A Murgia, M Ortu, P Tourani, B Adams, S Demeyer, An exploratory qualitative and quantitative analysis of emotions in issue report comments of open source systems, *Empirical Software Engineering* (2018), DOI: 10.1007/s10664-017-9526-0.
- Book
Chapters
1. M Ortu, M Romano, A Carta (2023), SMARTS: SeMi-supervised clustering for Assessment of Reviews using Topic and Sentiment. *ECDA 2022 Book of Recent Trends and Future Challenges in Learning from Data* ISBN: 978-3-031-54467-5.
 2. M Ortu, G Destefanis, M Kassab, S Counsell, M Marchesi, R Tonelli, Would you mind fixing this issue? An Empirical Analysis of Politeness and Attractiveness in Software Developed Using Agile Boards, Agile Processes, in *Software Engineering, and Extreme Programming* (2015), ISBN: 978-3-319-18612-2.

1. **A Method to Validate Clustering Partitions. CLADAG 2023 L Frigau, G Contu, M Ortu, A Carta (2023), pp. 473-476. ISBN 978-88-9193-563-2.**
2. **Multivariate regression tree to investigate the Italian mortality rates. CLADAG 2023 G Contu, L Frigau, M Ortu, S Pau (2023), pp. 394-396. ISBN 978-88-9193-563-2.**
3. **Multivariate regression tree topic modeling. CLADAG 2023 M Ortu, G Contu, L Frigau (2023), pp. 573-576. ISBN 978-88-9193-563-2.**
4. **F Frigau, G Contu, M Ortu, The Algorithm of NeSSC for Semisupervised Clustering. ISBIS 2022 Book of Short Papers (2022), pp. 49. ISBN 979-12-210-1389-4.**
5. **F Frigau, G Contu, M Ortu, Textual Semi-Supervised Clustering: an Application on Booking.com Data. ISBIS 2022 Book of Short Papers (2022), pp. 51. ISBN 979-12-210-1389-4.**
6. **M Ortu, M Romano, G Zammarchi, Student Satisfaction Assessments and Natural Language Processing: A Validation Study. ISBIS 2022 Book of Short Papers (2022), pp. 82. ISBN 979-12-210-1389-4.**
7. **M Ortu, L Frigau, G Contu, Explaining Student Satisfaction Assessments: A Natural Language Processing Approach, IES 2022 Innovation & Society 5.0: Statistical and Economic Methodologies for Quality Assessment (2022), ISBN: 978-88-94593-36-5.**
8. **G Contu, L Frigau, M Romano, M Ortu, A semi-supervised clustering method to extract information from the electronic Word Of Mouth, SIS 2022 - THE 51ST SCIENTIFIC MEETING OF THE ITALIAN STATISTICAL SOCIETY (2022), ISBN 9788891932310.**
9. **S Vacca, M Ortu, G Zammarchi, G Destefanis, On investigating social and financial aspects of Cardano, SIS 2022 - THE 51ST SCIENTIFIC MEETING OF THE ITALIAN STATISTICAL SOCIETY (2022), ISBN 9788891932310.**
10. **M Ortu, G Destefanis, R Tonelli, A statistical model for software releases complexity prediction, CLADAG 2019 Book Of Abstract, ISBN: 978-88-8317-108-6.**
11. G Ibba, M Ortu, Analysis Of The Relationship Between Smart Contracts' Categories and Vulnerabilities, 2022 IEEE International Conference on Software Analysis, Evolution and Reengineering, DOI: 10.1109/SANER53432.2022.00143.
12. N Uras, M Ortu, Investigation of Blockchain Cryptocurrencies' Price Movements Through Deep Learning: A Comparative Analysis, 2021 IEEE International Conference on Software Analysis, Evolution and Reengineering, DOI: 10.1109/SANER50967.2021.00091.
13. G Ibba, M Ortu, R Tonelli, Smart Contracts Categorization With Topic Modeling Techniques, CEUR Workshop Proceedings (2021), ISSN: 1613-0073.
14. D Bowes, G Destefanis, T Hall, J Petric, M Ortu, Fault-insertion and fault-fixing: analysing developer activity over time, Proceedings of the 16th ACM International Conference on Predictive Models and Data Analytics in Software Engineering, DOI: 10.1145/3416508.3417117.
15. R Tonelli, M Ortu, S Ducasse, M Marchesi, Workshop Summary: 2019 IEEE/ACM Second International Workshop on Emerging Trends in Software Engineering for Blockchain (WETSEB 2019), DOI: 10.1145/3356773.3356807.
16. M Ortu, M Marchesi, R Tonelli, Empirical analysis of affect of merged issues on github, 2019 IEEE/ACM 4th International Workshop on Emotion Awareness in Software Engineering (SEmotion), DOI: 10.1109/SEmotion.2019.00017.

Proceedings

17. M Ortu, M Orrú, G Destefanis, On comparing software quality metrics of traditional vs blockchain-oriented software: An empirical study, 2019 IEEE International Workshop on Blockchain Oriented Software Engineering (IWBOSE), ISBN: 978-1-7281-1807-9.
18. M Ortu, T Hall, M Marchesi, R Tonelli, D Bowes, G Destefanis, Mining communication patterns in software development: A github analysis, Proceedings of the 14th international conference on predictive models and data analytics in software engineering, DOI: 10.1145/3273934.3273943
19. G Destefanis, S Qaderi, D Bowes, J Petrić, M Ortu, A longitudinal study of anti micro patterns in 113 versions of tomcat, Proceedings of the 14th International Conference on Predictive Models and Data Analytics in Software Engineering, ISBN: 9781450365932.
20. G Destefanis, M Ortu, D Bowes, M Marchesi, R Tonelli, On measuring affects of github issues' commenters, Proceedings of the 3rd International Workshop on Emotion Awareness in Software Engineering (2018), ISBN: 9781450357517.
21. M Ortu, A Pinna, R Tonelli, M Marchesi, D Bowes, G Destefanis, Proceedings of the 19th International Conference on Agile Software Development: Companion (2018), ISBN: 9781450364225.
22. G Destefanis, M Marchesi, M Ortu, R Tonelli, A Bracciali, R Hierons, Smart contracts vulnerabilities: a call for blockchain software engineering?, 2018 International Workshop on Blockchain Oriented Software Engineering (IWBOSE), ISBN:978-1-5386-5986-1.
23. R Tonelli, M Marchesi, A Pinna, M Ortu, Angry-Builds: An Empirical Study Of Affect Metrics and Builds Success on GitHub Ecosystem, XP'18 Companion, May 21–25, 2018, Porto, Portugal (2018), ISBN: 978-1-4503-6422-5.
24. M Ortu, G Destefanis, S Counsell, M Marchesi, R Tonelli, Connecting the dots: measuring effectiveness and affectiveness in software systems, 2017 IEEE/ACM 2nd International Workshop on Emotion Awareness in Software Engineering (SEmotion), ISBN:978-1-5386-2793-8.
25. M Ortu, G Destefanis, S Counsell, M Marchesi, R Tonelli, On the randomness and seasonality of affective metrics for software development, SAC '17: Proceedings of the Symposium on Applied Computing, ISBN: 9781450344869.
26. K Mannaro, M Ortu, Onde chiare: A mobile application to mitigate the risk perception from electromagnetic fields, Proceedings MobiWIS 2016: Mobile Web and Intelligent Information Systems (2016), ISBN: 978-3-319-44215-0.
27. M Mäntylä, B Adams, G Destefanis, D Graziotin, M Ortu, Mining valence, arousal, and dominance: possibilities for detecting burnout and productivity?, Proceedings of the 13th international conference on mining software repositories (2016), ISBN: 9781450341868.
28. M Ortu, G Destefanis, S Swift, M Marchesi, Measuring high and low priority defects on traditional and mobile open source software, Proceedings of the 7th International Workshop on Emerging Trends in Software Metrics (2016), ISBN: 9781450341776.

Proceedings

40. M Ortu, A Murgia, G Destefanis, P Tourani, R Tonelli, M Marchesi, The emotional side of software developers in JIRA, 2016 IEEE/ACM 13th Working Conference on Mining Software Repositories (MSR), ISBN: 978-1-4503-4186-8.
41. G Destefanis, M Ortu, S Porru, S Swift, M Marchesi, A statistical comparison of Java and Python software metric properties, Proceedings of the 7th International Workshop on Emerging Trends in Software Metrics, ISBN: 9781450341776.
42. M Ortu, G Destefanis, S Counsell, S Swift, R Tonelli, M Marchesi, Arsonists or firefighters? Affectiveness in agile software development, Proceedings on 17th International Conference XP 2016 Edinburgh, ISBN 978-3-319-33514-8.
43. M Ortu, G Destefanis, B Adams, A Murgia, M Marchesi, R Tonelli, The jira repository dataset: Understanding social aspects of software development, Proceedings of the 11th international conference on predictive models and data analytics in software engineering (2015), ISBN: 9781450337151.
44. M Ortu, G Destefanis, M Kassab, M Marchesi, Measuring and understanding the effectiveness of jira developers communities, 2015 IEEE/ACM 6th International Workshop on Emerging Trends in Software Metrics, ISBN: 978-1-4673-7103-2.
45. M Ortu, B Adams, G Destefanis, P Tourani, M Marchesi, R Tonelli, Are bullies more productive? Empirical study of affectiveness vs. issue fixing time, 2015 IEEE/ACM 12th Working Conference on Mining Software Repositories, ISBN: 978-0-7695-5594-2.
46. M Ortu, G Destefanis, M Orru, R Tonelli, ML Marchesi, Could micro patterns be used as software stability indicator?, 2015 IEEE 2nd International Workshop on Patterns Promotion and Anti-patterns Prevention (PPAP), ISBN: 978-1-4673-6920-6.
47. A Murgia, G Concas, R Tonelli, M Ortu, S Demeyer, M Marchesi, On the influence of maintenance activity types on the issue resolution time, Proceedings of the 10th international conference on predictive models in software engineering, ISBN: 9781450328982.
48. A Murgia, P Tourani, B Adams, M Ortu, Do developers feel emotions? an exploratory analysis of emotions in software artifacts, Proceedings of the 11th working conference on mining software repositories, ISBN: 9781450328630.

CONFERENCES

International

1. **Multivariate Regression Tree Topic Modeling, CLAssification and Data Analysis Group (CLADAG), Salerno 2023.**
2. **Explaining Student Satisfaction Assessments: A Natural Language Processing Approach, IES 2022 Innovation & Society 5.0: Statistical and Economic Methodologies for Quality Assessment, Capua 2022.**
3. **On investigating social and financial aspects of Cardano, SIS 2022 - THE 51ST SCIENTIFIC MEETING OF THE ITALIAN STATISTICAL SOCIETY Caserta, 2022.**
4. **Student Satisfaction Assessments and Natural Language Processing: A Validation Study. ISBIS 2022, Napoli.**
5. **WallStreetBet: How David Defeated Goliath with Social Networks, Data Science, Statistics & Visualisation (DSSV) and the European Conference on Data Analysis (ECDA), July 9 2021, virtual.**
6. **A statistical model for software releases complexity prediction, CLAssification and Data Analysis Group (CLADAG), Cassino 2019.**
7. Investigation of Blockchain Cryptocurrencies' Price Movements Through Deep Learning: A Comparative Analysis, 28th edition of the IEEE International Conference on Software Analysis, Evolution and Reengineering virtually, March 9-12, 2021.
8. Fault-insertion and fault-fixing: analysing developer activity over time, 16th ACM International Conference on Predictive Models and Data Analytics in Software Engineering, virtual.
9. Empirical analysis of affect of merged issues on Github, 2019 IEEE/ACM 4th International Workshop on Emotion Awareness in Software Engineering (SEmotion), 28 May 2019, Montréal, QC, Canada.
10. On comparing software quality metrics of traditional vs blockchain-oriented software: An empirical study, 2019 IEEE International Workshop on Blockchain Oriented Software Engineering (IWBOSE), virtual. Mining communication patterns in software development: A github analysis, 14th international conference on predictive models and data analytics in software engineering, Oulu Finland 10 October 2018.
11. A longitudinal study of anti micro patterns in 113 versions of tomcat, 14th International Conference on Predictive Models and Data Analytics in Software Engineering, Oulu Finland 10 October 2018.
12. On measuring affects of Github issues' commenters, 3rd International Workshop on Emotion Awareness in Software Engineering, June 2 2018, Gothenburg, Sweden.
13. Smart contracts vulnerabilities: a call for blockchain software engineering?, 2018 International Workshop on Blockchain Oriented Software Engineering, March 20 2018, Campobasso, Italy.
14. Angry-Builds: An Empirical Study Of Affect Metrics and Builds Success on GitHub Ecosystem, XP'18 Companion, May 21-25, 2018, Porto, Portugal.

International

14. Connecting the dots: measuring effectiveness and affectiveness in software systems, 2017 IEEE/ACM 2nd International Workshop on Emotion Awareness in Software Engineering (SEmotion), May 21 2017 Buenos Aires, Argentina.
15. On the randomness and seasonality of affective metrics for software development, SAC '17: Proceedings of the Symposium on Applied Computing, Marrakech, Morocco April 4-6, 2017.
16. Measuring high and low priority defects on traditional and mobile open source software, 7th International Workshop on Emerging Trends in Software Metrics (2016), Austin Texas, May 14 - 22, 2016.
17. The emotional side of software developers in JIRA, 2016 IEEE/ACM 13th Working Conference on Mining Software Repositories (MSR), May 14–15, 2016. Austin, Texas.
18. A statistical comparison of Java and Python software metric properties, 7th International Workshop on Emerging Trends in Software Metrics, Austin Texas May 14 - 22, 2016.
19. Arsonists or firefighters? Affectiveness in agile software development, 17th International Conference XP, Edinburgh 2016.
20. The Jira repository dataset: Understanding social aspects of software development, 11th international conference on predictive models and data analytics in software engineering, Beijing China 21 October 2015.
21. Would you mind fixing this issue? An Empirical Analysis of Politeness and Attractiveness in Software Developed Using Agile Boards, Agile Processes, in Software Engineering, and Extreme Programming, Montréal, QC, Canada, May 21–25, 2019.
22. Measuring and understanding the effectiveness of jira developers communities, 6th International Workshop on Emerging Trends in Software Metrics, 2015, May 17 2015, Florence.
23. Are bullies more productive? Empirical study of affectiveness vs. issue fixing time, 2015 IEEE/ACM 12th Working Conference on Mining Software Repositories, May 17 2015, Florence.
24. Could micro patterns be used as software stability indicator?, IEEE 2nd International Workshop on Patterns Promotion and Anti-patterns Prevention (PPAP), March 2, 2015 Montréal, Canada.
25. On the influence of maintenance activity types on the issue resolution time, 10th international conference on predictive models in software engineering, Turin Italy 17 September 2014.
26. Do developers feel emotions? An exploratory analysis of emotions in software artifacts, 11th working conference on mining software repositories, March 2, 2015 Montréal, Canada.

EDITORIAL REFEREE EXPERIENCE

International

1. Expert System With Application, Editorial Contract: Tania Cerquitelli.
2. Engineering Transactions on Software, Editorial Contract: Jun Sun.
3. EPJ Data Science, Editorial Contact: Andrea Baronchelli.
4. PEERJ Computer Science, Editorial Contact: Mario Luca Bernard.
5. IEEE Access, Editorial Contact: Giuseppe Destefanis.
6. Empirical Software Engineering, Editorial Contact: Empirical Software Engineering Editorial Office.
7. The Journal of Systems & Software, Editorial Contact: Xiao Liu.
8. Information and Software Technology, Editorial Contact: Tracy Hall.

EDUCATION

- 2022 **Corso di formazione "Percorso di Formazione Iniziale in Ambito Didattico - Assicurazione Qualità"**.
Progetto DISCENTIA
Università di Cagliari
- 2018 **Corso di formazione "Sviluppo di competenze didattiche"**.
Progetto DISCENTIA
Università di Cagliari
- 2012-2015 **PhD in Electronic and Computer Science Engineering**, *University of Cagliari*.
Thesis: Mining software repositories: measuring effectiveness and affectiveness in software systems
- Sept-2013 **10th LASER Summer School on "Software for the Cloud and Big Data"**, *Elba Island, Italy*.
Speaker: Roger Barga (Microsoft), Karin Breitman (EMC), Sebastian Burckhardt (Microsoft), Adrian Cockcroft (Netflix), Carlo Ghezzi (Politecnico di Milano), Anthony Joseph (Berkeley), Pere Mato Vila (CERN), Bertrand Meyer (ETH Zurich).
- 2009-2011 **Master Degree in Electrical and Electronic Engineering**, *University of Cagliari*.
Thesis: Metodi e tecniche per l'estrazione ed aggregazione di contenuti Internet ed User Generated Content (106/110).
- 2006 **Erasmus**, *Politechnika Gdańska, Danzica (Gdansk PL)*.
Topic: FPGA's module Development for Texas Instrument transceiver CP1000 in VHDL svolta presso Politechnika Gdańska, Danzica (PL).
- 2003-2008 **Bachelor Degree in Electrical and Electronic Engineering**, *University of Cagliari*.
Thesis: FPGA's module Development for Texas Instrument transceiver CP1000 in VHDL svolta presso Politechnika Gdańska, Danzica (PL).

PROFESSIONAL SKILLS

| | |
|----------------------|---|
| Programming Language | Python, R, Java, C++, MATLAB, C#, MySQL, Go |
| Web | ASP, HTML, XML, WebServices (SOAP) |
| IDE | VisualStudio.net, Eclips, IntelliJ |
| Environment | OpenCV, Latex, Microsoft Office |

Operating System Windows, Linux
Framework Java Spring/GWT/Struts2/RESTEasy/Hibernate
Framework Python Panda/Scipy/Sklearn/NLTK/Tensorflow/Keras/Odoo
Framework R ggplot2, lme4, rms, part, mvpart, plsm
Hardware Description Verilog, VHDL
Languages (HDL)

Languages

Italian Native Speaker
English B2 certified by CLA University of Cagliari (Bachelor, Master, and PhD in English, Master and PhD dissertations written in English, publications and presentations are in English)

