# Dario Di Nucci – August 2020

# Curriculum Vitae - Including Summary of Publications

The Netherlands

Dario Di Nucci, Male, Italian

ADDRESS: Uilenburg 5E, 5211 DA 's-Hertogenbosch,

DATE OF BIRTH: 3rd September, 1988

PLACE OF BIRTH: Isernia, Italy
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Dario Di Nucci is an assistant professor at the Jheronimus Academy of Data Science, a collaboration between Tilburg University and Eindhoven Technical University. He received the European Ph.D. degree in Management & Information Technology from the University of Salerno in 2018 advised by Prof. Andrea De Lucia with a thesis entitled "Methods and Tools for Focusing and Prioritizing the Testing Effort". His research is on empirical software engineering, in particular software maintenance and evolution and software testing. To this aim, he applies several techniques such as machine learning, search-based algorithms, and mining of software repositories. He serves and has served as a program committee member of various international conferences (e.g., ESEC/FSE, ASE, ICSME, SANER, ICPC), and as referee for various international journals in the field of software engineering (e.g., TSE, TOSEM, EMSE, JSS) and artificial intelligence (e.g., TKDE, Neurocomputing).

### **EDUCATION**

2014/12 – 2018/03 DOCTOR OF PHILOSOPHY (Ph.D.) IN MANAGEMENT & INFORMATION TECHNOLOGY

University of Salerno, Italy

Fully funded by University of Salerno

Dissertation titled "Methods and Tools for Focusing and Prioritizing the Testing Effort" advised by prof.

Andrea De Lucia

2017/06 13<sup>th</sup> International Summer School on Software Engineering (ISSSE)

University of Salerno, Italy

2017/03 - 2017/05 VISITING STUDENT

Delft University of Technology, The Netherlands

Supervision: Prof. Andy Zaidman

2016/05 - 2016/07 VISITING STUDENT

Delft University of Technology, The Netherlands

Supervision: Prof. Andy Zaidman

2016/06 12<sub>TH</sub> International Summer School on Software Engineering (ISSSE)

University of Salerno, Italy

2015/09 International Summer School on Software Engineering (SE School@UNIBZ 2015)

Free University of Bolzano, Italy

2013/03 ERASMUS IP HUMAN-MACHINE INTERACTION

Reims, France

2011/10 - 2014/09 MASTER'S DEGREE (M.Sc.) IN COMPUTER SCIENCE

University of Salerno, Italy 110/110 cum laude

Dissertation titled "A defect prediction model based on relationships between developers and modified

files" promoted by professor Andrea De Lucia

2007/10 - 2011/05 BACHELOR'S DEGREE (B.Sc.) IN COMPUTER SCIENCE

University of Molise, Italy 110/110 cum laude

Dissertation titled "Applications of mathematical models to semantic research" promoted by professor Giovanni Capobianco

# **EMPLOYMENT HISTORY**

01/2020 - ACTUAL ASSISTANT PROFESSOR

Jheronimus Academy of Data Science, Tilburg University, The Netherlands

2018/12 - 2020/06 POST-DOCTORAL LECTURER

Vrije Universiteit Brussel, Belgium

01/2018 - 12/2019 POST-DOCTORAL RESEARCHER

Vrije Universiteit Brussel, Belgium

FWO EOS project "SECO-ASSIST: Automated Assistance for Developing Software in Ecosystems

of the Future" - https://secoassist.github.io/

Innoviris TeampUP project "INTiMALS INTelligent Modernisation Assistance for Legacy Software" -

http://soft.vub.ac.be/intimals/

2014/12 - 2018/03 Ph.D. STUDENT IN MANAGEMENT & INFORMATION TECHNOLOGY

University of Salerno, Italy

Fully funded by University of Salerno. Advisor: Prof. Andrea De Lucia

### **TEACHING**

Introduction To Machine Learning (mandatory course in the Pre-Master's in Data Science and Entrepreneurship)

University of Tilburg, Eindhoven University of Technology, The Netherlands

Co-holder of the course (co-holder: Prof. Damian A. Tamburri)

Spring 2020

DATA STATISTICS (mandatory course in the Bachelor in Data Science)

University of Tilburg, Eindhoven University of Technology, The Netherlands

Co-holder of the course (co-holder: Prof. Maurits C. Kaptein)

Fall 2019

CAPITA SELECTA OF SOFTWARE ENGINEERING (elective course in the Master's in Computer Science)

Vrije Universiteit Brussel, Belgium

Co-holder of the course (co-holder: Prof. Coen De Roover) 2019-2020 (yearly course), 2018-2019 (annual course)

SOFTWARE ENGINEERING, MANAGEMENT AND EVOLUTION (mandatory course in the Master's in Computer Science)

University of Salerno, Italy

Teaching assistant (holder: Prof. Andrea De Lucia)

Spring 2017, Spring 2016

**SOFTWARE ENGINEERING** (mandatory course in the Bachelor in Computer Science)

University of Salerno, Italy

Teaching assistant (holder: Prof. Andrea De Lucia)

Fall 2016, Fall 2015

WEB DEVELOPMENT (mandatory course in the Bachelor in Computer Science)

University of Salerno, Italy

Teaching assistant

Fall 2016

PROGRAMMING I (mandatory course in the Bachelor in Computer Science)

University of Salerno, Italy

Teaching assistant

Fall 2016 (holder: Prof. Riccardo Di Stasi), Fall 2015 (holder: Prof. Enrico Fischetti)

SOFTWARE ENGINEERING: MAINTENANCE AND TESTING (mandatory course in the Master's in Computer Science)

University of Salerno, Italy

Teaching assistant (holder: Prof. Andrea De Lucia)

Fall 2015

#### SUPERVISION OF PH.D. THESES - ON-GOING, ADVISED:

[PT3] LIBRARY USAGE OPTIMIZATION VIA STATIC AND DYNAMIC ANALYSIS OF SOURCE CODE

Camilo Ernesto Velázquez Rodríguez (Promotor: Prof. Coen De Roover)

Projected: end of 2022

[PT2] MINING CHANGE HISTORIES FOR LIBRARY MIGRATION PATTERNS

Yunior Pacheco Correa (Promotor: Prof. Coen De Roover)

Projected: end of 2021

[PT1] ASSESSING TEST QUALITY AND RESILIENCE OF DISTRIBUTED APPLICATIONS

Jonas De Bleser (Promotor: Prof. Coen De Roover)

Projected: end of 2020

### SUPERVISION OF MASTER'S THESES - GRADUATED, ADVISED:

2020 [MT7] MEASURING COMPETITIVENESS BASED ON INSTAGRAM FOLLOWER COMMUNICATION

Student: Niels van Gorsel - M.Sc. in Data Science and Entrepreneurship - Promotor: Prof. Shantanu Mullick

[MT6] HEURISTIC-GUIDED RESILIENCE TESTING OF PERSISTENT ACTOR IMPLEMENTATIONS

Student: Patrick Muriuki Gakuo - M.Sc. in Computer Science - Promotor: Prof. Coen De Roover

2016 [MT5] CHECKAPP: A TOOL FOR MONITORING JAVA APPLICATION PERFORMANCE

Student: Elisa D'Eugenio - M.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia

[MT4] PETRA: A POWER ESTIMATION TOOL FOR ANDROID APPLICATIONS

Student: Antonio Prota - M.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia

2015 [MT3] DEVELOPMENT AND COMPARISON OF NOVEL TECHNIQUES FOR SEARCH BASED TEST DATA GENERATION

Student: Giovanni Grano - M.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia

[MT2] DESIGN AND DEVELOPMENT OF A TOOL FOR THE AUTOMATIC GENERATION OF TEST CASES

Student: Simone Scalabrino - M.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia

[MT1] A COMBINED MODEL FOR THE PREDICTION OF DEFECTS

Student: Giuseppe De Rosa - M.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia

#### SUPERVISION OF BACHELOR THESES - GRADUATED, ADVISED:

2017 [BT9] DESIGN AND DEVELOPMENT OF METHODS FOR TEST CASE MINIMIZATION

Student: Francesco De Feo - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia

[BT8] DESIGN AND DEVELOPMENT OF METHODS FOR TEST CASE PRIORITIZATION

Student: Giuseppe Sessa – B.Sc. in Computer Science – Promotor: Prof. Andrea De Lucia

[BT7] DESIGN AND DEVELOPMENT OF A PLUGIN FOR OPTIMIZING REGRESSION TESTING

Student: Gerardo Della Monica - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia

[BT6] DESIGN AND DEVELOPMENT OF A PLUGIN FOR THE DETECTION OF ENERGY DEFECTS OF MOBILE

APPLICATIONS

Student: Sara Zaino - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia

[BT5] DESIGN AND DEVELOPMENT OF A DEFECT PREDICTION TOOL

Student: Giuseppina Tufano – B.Sc. in Computer Science – Promotor: Prof. Andrea De Lucia

[BT4] DEVELOPMENT OF A SOFTWARE ENERGY ESTIMATION METHODOLOGY IN AN INTEGRATED DEVELOPMENT

**ENVIRONMENT** 

Student: Roberto Contaldo – B.Sc. in Computer Science – Promotor: Prof. Andrea De Lucia

[BT3] DESIGN AND DEVELOPMENT OF A DEFECT PREDICTION TOOL BY USING CROSS-PROJECT TECHNIQUES

Student: Pasquale Martiniello - B.Sc. in Computer Science - Advisor: Prof. Andrea De Lucia

2016 [BT2] TRIO: A TOOL FOR REGRESSION TESTING OPTIMIZATION

Student: Antonio Luca D'Avanzo - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia

[BT1] DESIGN AND DEVELOPMENT OF A DEFECT PREDICTION TOOL

Student: Fabiano Pecorelli - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia

# **ACADEMIC RECORD**

Journal Articles: 9 Conference Papers: 12 (main track), 7 (tool demonstration track), 5 (miscellaneous tracks), Workshop Papers: 7 Citations: 480, h-index: 13, https://scholar.google.it/citations?user=YJqcbnlAAAJ&hl=it

#### 1. JOURNAL PAPERS

[J9] M. Vandercammen, L. Christophe, D. Di Nucci, W. De Meuter, C. De Roover Prioritising Server Side Reachability via Inter-process Concolic Testing The Art, Science, and Engineering of Programming, 2020, Volume 5, Issue 2, 34 pages, to appear.

[J8] S. Dalla Palma, D. Di Nucci, F. Palomba, D. A. Tamburri Toward a Catalog of Software Quality Metrics for Infrastructure Code Elsevier Journal of Systems and Software (JSS), 2020, Volume 170, 8 pages, 1 - 8.

[J7] F. Pecorelli, D. Di Nucci, C. De Roover, A. De Lucia A Large Empirical Assessment of the Role of Data Balancing in Machine-Learning-based Code Smell Detection Elsevier Journal of Systems and Software (JSS), 2020, Volume 169, 16 pages, 1 - 16.

[J6] G. Grano, F. Palomba, D. Di Nucci, A. De Lucia, H. Gall Scented Since the Beginning: On the Diffuseness of Test Smells in Automatically Generated Test Code Elsevier Journal of Systems and Software (JSS), 2019, Volume 156, 16 pages, 312 - 327.

[J5] P. Salza, F. Palomba, D. Di Nucci, A. De Lucia, F. Ferrucci Third-Party Libraries in Mobile Apps When, How, and Why Developers Update Them Springer Empirical Software Engineering (EMSE), 2019, Volume 25, 37 pages, 2341 - 2377.

[J4] D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia A Test Case Prioritization Genetic Algorithm guided by the Hypervolume Indicator IEEE Transactions on Software Engineering (TSE), 2019, Volume 46, Issue 6, 674 - 696.

[J3] F. Palomba, D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia
On the Impact of Code Smells on the Energy Consumption of Mobile Applications
Elsevier Information and Software Technology (INFSOFT), 2019, Volume 105, 13 pages, 43 - 55.

[J2] D. Di Nucci, F. Palomba, G. De Rosa, G. Bavota, R. Oliveto, A. De Lucia
 A Developer Centered Bug Prediction Model
 IEEE Transactions on Software Engineering (TSE), 2018, Volume 44 Issue 1, 21 pages, 5 - 24.

[J1] D. Di Nucci, F. Palomba, R. Oliveto, A. De Lucia Dynamic Selection of Classifiers in Bug Prediction: an Adaptive Method IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI), 2017, Volume 1 Issue 3, 11 pages, 202 - 212.

# 2. CONFERENCE PAPERS, MAIN TRACK (I.E., FORMALLY PUBLISHED IN INTERNATIONAL CONFERENCE PROCEEDINGS WITH PEER REVIEW)

[C12] J. De Bleser, D. Di Nucci, C. De Roover A Delta-Debugging Approach to Assessing the Resilience of Actor Programs through Run-time Test Perturbations In Proceedings of the 1st IEEE/ACM International Conference on Automation of Software Test (AST 2020), Seoul, South Korea, 2020, 10 pages, to appear.

[C11] F. Pecorelli, F. Palomba, D. Di Nucci, A. De Lucia Comparing Heuristic and Machine Learning Approaches for Metric-Based Code Smell Detection In Proceedings of the 27th IEEE/ACM International Conference on Program Comprehension (ICPC 2019), Montreal, Canada, 2019, 12 pages, 93 - 104.

#### [C10] G. Catolino, D. Di Nucci, F. Ferrucci

Cross-Project Just-in-Time Bug Prediction for Mobile Apps: An Empirical Assessment

In Proceedings of the 6th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft 2019), Montreal, Canada, 2019, 12 pages, 99 - 110.

#### [C9] J. De Bleser, D. Di Nucci, C. De Roover

Assessing Diffusion and Perception of Test Smells in Scala Projects

In Proceedings of the 16th IEEE/ACM International Conference on Mining Software Repositories (MSR 2019) – Montreal, Canada, 2019, 11 pages, 457 - 467.

#### [C8] Y. Pacheco, J. De Bleser, T. Molderez, D. Di Nucci, W. De Meuter, C. De Roover

Mining Scala Framework Extensions for Recommendation Patterns

In Proceedings of the 26th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Hangzhou, China, 2019, 10 pages, 514 - 523.

#### [C7] P. Salza, F. Palomba, D. Di Nucci, C. D'Uva, A. De Lucia, F. Ferrucci

Do Developers Update Third-Party Libraries in Mobile Apps?

In Proceedings of the IEEE/ACM 26th International Conference on Program Comprehension (ICPC 2018), Gothenburg, Sweden, 2018, 11 pages, 255 - 265.

### [C6] L. Pascarella, F. Geiger, F. Palomba, D. Di Nucci, I. Malavolta, A. Bacchelli

Self-Reported Activities of Android Developers

In Proceedings of the 5th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft 2018), Gothenburg, Sweden, 2018, 12 pages, 144 - 155.

#### [C5] D. Di Nucci, F. Palomba, D. A. Tamburri, A. Serebrenik, A. De Lucia

Detecting Code Smells using Machine Learning Techniques: Are We There Yet?

In Proceedings of the 25th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Campobasso, Italy, 2018, 10 pages, 612 - 621.

#### [C4] D. Di Nucci, F. Palomba, A. Prota, A. Panichella, A. Zaidman, A. De Lucia

Software-Based Energy Profiling of Android Apps: Simple, Efficient and Reliable?

In Proceedings of the 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2017), Klagenfurt, Austria, 2017, 12 pages, 103-114

#### [C3] S. Scalabrino, G. Grano, D. Di Nucci, R. Oliveto, A. De Lucia

Search-based Testing of Procedural Programs: Iterative Single-Target or Multi-Target Approach?

In Proceedings of the Symposium on Search-Based Software Engineering (SSBSE 2016), Raleigh, NC, United States, 2016, 15 pages, 64 – 79

#### [C2] D. Di Nucci, F. Palomba, S. Siravo, G. Bavota, R. Oliveto, A. De Lucia

On the Role of Developer's Scattered Changes in Bug Prediction

In Proceedings of the 31st IEEE International Conference on Software Maintenance and Evolution (ICSME 2015) - Bremen, Germany, 2015, 10 pages, 241-250

#### IC11 D. Di Nucci. A. Panichella. A. Zaidman. A. De Lucia

Hypervolume-based Search for Test Case Prioritization

In Proceedings of the Symposium on Search-Based Software Engineering (SSBSE 2015) - Bergamo, Italy, 2015, 15 pages, 157-172

# 3. Conference Papers, Tool Demonstrations Track (i.e., formally published in international conference proceedings with peer review)

#### [D7] E. Iannone, F. Pecorelli, D. Di Nucci, F. Palomba, A. De Lucia

Refactoring Android-specific Energy Smells: A Plugin for Android Studio

In Proceedings of the IEEE/ACM 28th International Conference on Program Comprehension (ICPC 2020), Seoul, South Korea, 2020, 4 pages, to appear.

# [D6] J. De Bleser, D. Di Nucci, C. De Roover

SoCRATES - Scala Radar for Test Smells

In Proceeding of the 10th ACM SIGPLAN Scala Symposium (SCALA 2019) - Tool Paper, London, United Kingdom, 2019, 5 pages, 22 - 26

[D5] S. Scalabrino, G. Grano, D. Di Nucci, M. Guerra, A. De Lucia, H. Gall, R. Oliveto

OCELOT: a Search-Based Test-Data Generation Tool for C

In Proceeding of the 33rd IEEE/ACM International Conference on Automated Software Engineering (ASE 2018), Montpellier, France, 2018, 4 pages, 868 - 871.

[D4] F. Geiger, I. Malavolta, L. Pascarella, F. Palomba, D. Di Nucci, A. Bacchelli

A Graph-based Dataset of Commit History of Real-World Android apps

In Proceedings of the IEEE/ACM 15th International Conference on Mining Software Repositories (MSR 2018), Gothenburg, Sweden, 2018, 5 pages, 30 - 33.

[D3] D. Di Nucci, F. Palomba, A. Prota, A. Panichella, A. Zaidman, A. De Lucia

PETrA: a Software-Based Tool for Estimating the Energy Profile of Android Applications

In Proceedings of the 39th IEEE/ACM International Conference on Software Engineering (ICSE 2017) - Buenos Aires, Argentina, 2017, 4 pages, 3-6.

[D2] F. Palomba, D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia

Lightweight Detection of Android-specific Code Smells: the aDoctor Project

In Proceedings of the 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2017) - Tool Track, Klagenfurt, Austria, 2017, 5 pages, 487-491

[D1] F. Palomba, D. Di Nucci, M. Tufano, G. Bavota, R. Oliveto, D. Poshyvanyk, A. De Lucia

Landfill: an Open Dataset of Code Smells with Public Evaluation

In Proceedings of the IEEE/ACM 12th Working Conference on Mining Software Repositories (MSR 2015) - Florence, Italy, 2015, 4 pages, 482-485

# 4. Conference Papers, Miscellaneous Tracks (i.e., formally published in international conference proceedings with peer review)

[M5] M. Di Gregorio, D. Di Nucci, F. Palomba, G. Vitiello

The Making of Accessible Android Applications: An Empirical Study on the State of the Practice

In Proceedings of the 36th IEEE International Conference on Software Maintenance and Evolution (ICSME 2020), Adelaide, Australia, 2020, 2 pages, to appear.

[M4] G. Cascavilla, J. Slabber, F. Palomba, D. Di Nucci, D. A. Tamburri, W.J. van den Heuvel

Counterterrorism for Cyber-Physical Spaces: A Computer Vision Approach

In Proceedings of the International Conference on Advanced Visual Interfaces (AVI 2020), Ischia, Italy, 2020, 5 pages, to appear.

[M3] S. Dalla Palma, M. Garriga, D. Di Nucci, D. A. Tamburri, W.J. van den Heuvel

Quality Management of Infrastructure Code in Serverless Computing: The RADON Approach

In Proceedings of the 8th European Conference On Service-Oriented And Cloud Computing (ESOCC 2020), Heraklion, Crete, 2020, 5 pages, to appear.

[M2] H. Son Pham, S. Nijssen, K. Mens, D. Di Nucci, T. Molderez, C. De Roover, J. Fabry, V. Zaytsev.

Mining Patterns in Source Code using Tree Mining Algorithms

In Proceedings of the 22nd International Conference on Discovery Science (DS 2019), Split, Croatia, 2019, 10 pages, 471-480.

[M1] D. Di Nucci

Methods and Tools for Focusing and Prioritizing the Testing Effort

In Proceeding of the 34th IEEE International Conference on Software Maintenance and Evolution (ICSME 2018) - Doctoral Symposium Track, Madrid, Spain, 2018, 5 pages, 722 - 726.

# 5. Published Workshop Papers (i.e., formally published in international workshop proceedings with peer review)

[W7] F.Pecorelli, D. Di Nucci, C. De Roover, A. De Lucia

On the Role of Data Balancing for Machine Learning-based Code Smell Detection

In Proceeding of the 3rd ACM SigSoft International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2019), Tallinn, Estonia, 2019, 6 pages, 19 - 24.

[W6] D. Di Nucci, H. Son Pham, J. Fabry, C. De Roover, K. Mens, T. Molderez, S. Nijssen and V. Zaytsev

A Language-Parametric Modular Framework for Mining Idiomatic Code Patterns

In Proceedings of the 12th Seminar Series on Advanced Techniques & Tools for Software Evolution (SATTOSE 2019), Bolzano, Italy, 2019

[W5] Y. Pacheco, J. De Bleser, T. Molderez, D. Di Nucci, W. De Meuter, C. De Roover

Mining Extension Point Patterns in Scala

In Proceedings of the 17th Belgium-Netherlands Software Evolution Workshop (BENEVOL 2018), Delft, The Netherlands, 2018, 5 pages, 16 - 20.

[W4] D. Tamburri, F. Palomba, D. Di Nucci, L. Di Giacomo

**Omniscient DevOps Analytics** 

In Proceedings of the 1<sub>st</sub> International Workshop on Software Engineering Aspects of Continuous Development and New Paradigms of Software Production and Deployment (DEVOPS 2018), Chateau de Villebrumier, France, 2018, 12 pages, 48 - 59

[W3] D. Di Nucci, F. Palomba, A. De Lucia

Evaluating the Adaptive Selection of Classifiers for Cross-Project Bug Prediction

In Proceedings of the 6th International Workshop on Realizing Artificial Intelligence Synergies in Software Engineering (RAISE 2018), Gothenburg, Sweden, 2018, 7 pages, 48 - 54.

[W2] D. Di Nucci, A. De Lucia

The Role of Meta-Learners in the Adaptive Selection of Classifiers

In Proceeding of the 2nd Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2018), Campobasso, Italy, 2018, 6 pages, 7 - 12.

[W1] F. Palomba, D. Di Nucci, A. Panichella, R. Oliveto, A. De Lucia

On the Diffusion of Test Smells in Automatically Generated Test Code: An Empirical Study

In Proceedings of the 9th International Workshop on Search-Based Software Testing (SBST 2016) - Austin, TX, United States, 2016, 10 pages, 5-14

#### 6. INVITED TALKS

2020 [T6] IMPROVING ENERGY EFFICIENCY OF MOBILE APPLICATIONS IN THE INTERNET OF THINGS

University of Salerno, Fisciano, Italy, June 3rd 2020

[T5] DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT

University of Salerno, Fisciano, Italy, 25th March 2020

2019 [T4] MINING SOURCE CODE<sup>3</sup>: MINING IDIOMS, USAGES AND EDITS

FOSDEM, Brussels, Belgium, 3rd February 2019

2018 [T3] DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT

Jheronimus Academy of Data Science, 's-Hertogenbosch, The Netherlands, 9th March 2018

2017 [T2] DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT

Jheronimus Academy of Data Science, 's-Hertogenbosch, The Netherlands, 5th December 2017

[T1] DIAGNOSE AND DETECT ENERGY FLAWS OF ANDROID APPS

Vrije Universiteit Brussel, Brussels, Belgium. 23rd March 2017

# 7. SERVICE TO THE SCIENTIFIC COMMUNITY

#### ORGANIZATION OF EVENTS RELATED TO SOFTWARE ENGINEERING

2021 TOOL DEMO CO-CHAIR

29th IEEE/ACM International Conference on Program Comprehension (ICPC), Madrid, Spain

2020 ORGANISER

3rd International Workshop on Software Health (SoHeal), Seoul, South Korea

**PUBLICITY CO-CHAIR** 

28th IEEE/ACM International Conference on Program Comprehension (ICPC), Seoul, South Korea

**PROGRAM CHAIR** 

1st Workshop on ENgineering Intelligent Applications' Code (ENIAC20), Porto, Portugal

2019 ORGANIZER

18th Belgium-Netherlands Software Evolution Workshop (BENEVOL19), Brussels, Belgium

**COMMITTEE MEMBER** 

14th International Summer School on Software Engineering (ISSSE), University of Salerno, Italy

2017 SCIENTIFIC SECRETARIAT

13th International Summer School on Software Engineering (ISSSE), University of Salerno, Italy

2016 SCIENTIFIC SECRETARIAT

12th International Summer School on Software Engineering (ISSSE), University of Salerno, Italy

#### PHD JURY COMMITTEE MEMBERSHIP

2020 INVESTIGATING PERFORMANCE ISSUES IN MOBILE APPS

Teerath Das. Gran Sasso Science Institute (IT)

promoted by Prof. Massimiliano Di Penta and Dr. Ivano Malavolta

#### PROGRAM COMMITTEE MEMBER OF INTERNATIONAL CONFERENCES

2021 28th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) -

Research Track, Reproducibility Studies and Negative Results Track

2020 20th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM) - New Ideas

and Emerging Results Track

28th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software

Engineering (ESEC/FSE) - Tool Demo Track

 $35 \\ \text{th} \ \textbf{IEEE/ACM International Conference on Automated Software Engineering - Late Breaking Results Track}$ 

46th Euromicro Conference on Software Engineering and Advanced Applications (SEAA) - Journal First Track

28th International Conference on Program Comprehension (ICPC) - Research Track

27th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) -

Research Track, Journal First Track, Tool Demo Track

2019 35th IEEE International Conference on Software Maintenance and Evolution (ICSME) - Tool Demo Track

27th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software

Engineering (ESEC/FSE) - Artefact Evaluation Track

6th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft) -

Student Research Competition

5th International Conference on Advances and Trends in Software Engineering (SOFTENG)

2018 34th IEEE International Conference on Software Maintenance and Evolution (ICSME) - Tool Demo Track

5th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft) -

Student Research Competition

#### PROGRAM COMMITTEE MEMBER OF INTERNATIONAL WORKSHOPS

2020 4th International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)

2019 2nd International Workshop on Cloud-Native Applications Design and Experience (CNAX)

3rd International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)

2018 1st International Workshop on Cloud-Native Applications Design and Experience (CNAX)

2nd Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)

10th International Conference on Advances in System Testing and Validation Lifecycle (VALID)

2017 9th International Conference on Advances in System Testing and Validation Lifecycle (VALID)

#### **EDITORIAL BOARD MEMBER OF INTERNATIONAL JOURNALS AND BLOG**

2020 - ACTUAL IEEE Software Initiatives Team

2019 - ACTUAL IEEE Software Blog

# **REVIEWER**

INTERNATIONAL Advances in Software Engineering - Elsevier

JOURNALS Applied Soft Computing - Elsevier

JOURNALS Applied Soft Computing - Elsevier Computational Intelligence - Wiley

Empirical Software Engineering - Springer

IEEE Access - IEEE

IET Software - Institution of Engineering and Technology

Information Processing Letters - Elsevier

Journal of Software: Evolution and Process - Wiley Journal of Systems and Software - Elsevier

Neurocomputing - Elsevier

Science of Computer Programming - Elsevier

Scientific Programming - Hidawi Software Quality Journal - Springer

Transactions on Knowledge and Data Engineering - IEEE

Transactions on Software Engineering - IEEE

Transactions on Software Engineering and Methodology - ACM (in the Board of Distinguished Reviewers)

International Conference on Evaluation and Assessment in Software Engineering: 2020

**CONFERENCES** IEEE International Conference on Software Analysis, Evolution, and Reengineering: 2017, 2018

IEEE International Conference on Program Comprehension: 2016, 2019

IEEE International Conference on Software Maintenance and Evolution: 2016 (New Ideas and Emerging

Results Track), 2018, 2019, 2020

International Conference on Business Information Systems: 2015, 2016 International Conference on Distributed Multimedia Systems: 2015, 2016 International Conference on Enterprise Information Systems: 2015, 2016, 2017

International Conference on Mining Software Repositories: 2019

# 8. AWARDS

2020 BEST REVIEWER FOR 2019

Journal of Systems and Software

2017 NSF TRAVEL SUPPORT

Symposium on Search-Based Software Engineering (SSBSE), Raleigh, NC, United States

2015 ACM SIGSOFT STUDENT TRAVEL GRANT

37th ACM/IEEE International Conference on Software Engineering (ICSE), Florence, Italy