# Luca Pascarella



#### About

Ing. Dr. Luca Pascarella is an Italian software engineer with proven experience in software development, artificial intelligence, and embedded systems. His academic research aims to transform software systems development from an intuition-based model to a data-driven one by leveraging big data and deep learning technologies.

#### Contacts

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#### Highlights

| +41 (0)77 814 02 61<br>luca.pascarella@gmail.com<br>LucaPascarella.com | 2022<br>now  | <b>Lecturer</b><br>Course: Introduction to program Nao Robots                         | ETH Zürich, Switzerland                    |
|--|--------------|---|--|
| <b>ORCID</b> 0000-0001-8289-7736                                       | 2019<br>2021 | <b>CEO</b> (co-founder)<br>Role: <i>Director and Head of Embedded Software Engine</i> | LPSystems B.V., The Netherlands<br>cering  |
| <b>Indexes</b><br>https://Google Scholar                               | 2016<br>2020 | <b>Ph.D.</b><br>Thesis: Augmented Fine-Grained Defect Prediction for                  | TU Delft, The Netherlands<br>r Code Review |
| https://DBLP   | 2018<br>2019 | <b>Internship</b> (research)<br>Topic: Understand the Developers' Information Needs   | SIG, The Netherlands in Code Review        |
| Languages  |              |   |  |
| Italian  | 2011         | Teacher   | L. Palmieri, Italy                         |
| English  | 2013         | Course: C for Embedded Programming  |  |
|  | 2008         | B.Sc.   | University of Sannio, Italy                |
|  | 2011         | Thesis: Design of a Low Distortion ADC with Real-Tim                                  |  |

# **Education and Training**

| Qualification<br>Organization | <b>Lecturer / Senior Researcher</b><br>ETH Zurich                        | Electrical Engineering<br>Switzerland |
|-------------------------------|--|---------------------------------------|
| Period                        | Oct 2022 - now   |                                       |
| Activity                      | Research on Energy Efficient Sensor Fusion and Computer Vision           |                                       |
| Supervisor                    | Prof. Dr. Luca Benini and Dr. Michele Magno                              |                                       |
| Qualification                 | Postdoctoral Researcher  | Informatics                           |
| Organization                  | Università della Svizzera Italiana                                       | Switzerland                           |
| Period                        | Set 2020 - Set 2022  |                                       |
| Activity                      | Research on Intelligent Recommender Systems for Software Developers      |                                       |
| Supervisor                    | Prof. Dr. Gabriele Bavota  |                                       |
| Qualification                 | Doctor of Philosophy   | Computer Science                      |
| Organization                  | Delft University of Technology   | The Netherlands                       |
| Period                        | Jan 2016 - Set 2020  |                                       |
| Thesis                        | Augmented Fine-Grained Defect Prediction for Code Review                 |                                       |
| Supervisor                    | Prof. Dr. Alberto Bacchelli  |                                       |
| Qualification                 | Research Intern  | Industry                              |
| Organization                  | Software Improvement Group (SIG)   | The Netherlands                       |
| Period                        | Nov 2018 - Dec 2019  |                                       |
| Topic                         | Understand the Developers' Information Needs in Code Review in Open an   | d Industrial SW Development           |
| Supervisor                    | Dr. Magiel Bruntink  |                                       |
| Qualification                 | Visitor  | Academic                              |
| Organization                  | IMDEA Software Institute   | Spain                                 |
| Period                        | Summer 2016  |                                       |
| Topic                         | Investigate the Rationale of Code Comments in Java Source Code           |                                       |
| Supervisor                    | Prof. Dr. Alessandra Gorla   |                                       |
| Qualification                 | Master's degree cum laude  | Software Engineering                  |
| Organization                  | University of Sannio   | Italy                                 |
| Period                        | Set 2012 - May 2015  |                                       |
| Thesis                        | Quantitative and Qualitative Analysis of Development Processes in Open-S | Source Video Games                    |
| Supervisor                    | Prof. Dr. Massimiliano Di Penta  |                                       |
| Qualification                 | Bachelor's degree  | Software Engineering                  |
| Organization                  | University of Sannio   | Italy                                 |
| Period                        | Set 2008 - May 2011  |                                       |
| Thesis                        | HW Design of Low Distortion A/D and SW Development of a Real-Time P      | ost-Sampling Bayesian Correction      |
| Supervisor                    | Prof. Dr. Sergio Rapuano and Prof. Dr. Luca De Vito                      |                                       |
| Qualification                 | School Internship  | Industry                              |
| Organization                  | DRF Elettronica sas  | Italy                                 |
| Period                        | Jan 2005 - Dec 2009  | 20009                                 |
| Activity                      | Servicing, repair, maintenance, and installation of domestic appliances  |                                       |
| Supervisor                    | Prof. Franco Di Rubbo  |                                       |
| -                             |  |                                       |

# Work Experiences

| <b>2022 - now</b><br>Switzerland      | <b>ETH Zurich</b><br>Energy-Efficient AI for Edge Computing  | Lecturer - Resercher     |
|---------------------------------------|--|--------------------------|
| 2014 - now<br>Italy                   | <b>Futura Group</b> Srl<br>Magazine writer and product designer  | Royalty                  |
| <b>2020 - 2022</b><br>Switzerland     | <b>Università della Svizzera italiana</b> (USI)<br>An Artificial Assistant for Software Developers   | Resercher                |
| <b>2019 - 2021</b><br>The Netherlands | <b>LPSystems</b> B.V.<br>Business strategy, software, and hardware development   | CEO - Principal Engineer |
| <b>2018 - 2019</b><br>The Netherlands | <b>Software Improvement Group (SIG</b> )<br>Understand the Developers' Information Needs in Code Review  | Researcher Internship    |
| 2018 - 2020<br>Italy                  | <b>DEM Solutions</b><br>FreeRTOS, C/C++, Java, USB, cryptography, anti-dumping   | Scientific Engineer      |
| <b>Jun 2018</b><br>Belgium            | <b>Alyseum</b><br>FreeRTOS, C/C++, FAT-FS  | Scientific Engineer      |
| <b>May 2017</b><br>Germany            | <b>EM Elektronik</b><br>FreeRTOS, C/C++, FAT-FS, TCP/IP  | Engineer                 |
| <b>Mar-Jul 2014</b><br>Italy          | <b>Beneslan</b> non-profit association<br>Architecture design of a donation portal, PHP, Yii Framework   | Developer                |
| <b>Mar 2014</b><br>Italy              | <b>VBE Telecomunicazioni</b><br>Software customization of the FT859M as a radio backup system  | Developer                |
| <b>2012 - 2013</b><br>France          | <b>Bruitparif</b> non-profit association<br>Sonar-velox project, a microphone array to portray sounds in 3D maps                                     | Researcher               |
| <b>2010 - 2012</b><br>Italy           | <b>ACME Systems</b> Srl<br>Designer of Aria G25 and Pick & Place assembly line supervisor  | Engineer                 |
| May 2012<br>Italy                     | <b>Ondarete</b> Sas Di Mora A. & C.<br>Software customization of the FT859M module   | Consultant               |
| <b>Jan 2012</b><br>Georgia, USA       | <b>MESI</b> of David Milligan<br>Software customization of the FT862M module   | Consultant               |
| <b>2011 - 2013</b><br>Italy           | <b>LP Systems</b><br>Start-up founder and project manager  | Founder - Engineer       |
| <b>2010 - 2011</b><br>Switzerland     | <b>ESMOLO</b> Ltd<br>Low-power microcontrollers, C/C++, Java, WiFi, USB  | Consultant               |
| Nov 2009<br>Italy                     | <b>ELSAG DATAMAT</b> Spa<br>Containers tracking, PHP, SQLite, C, and HTML  | Consultant               |
| <b>Jun 2009</b><br>Italy              | <b>PROFEEL</b> Srl<br>DSP for digital motor control, C/C++, Altium Designer  | Consultant               |
| <b>Jun 2008</b><br>Italy              | <b>ACME Systems</b> Srl<br>Designer of the TuxMule and TuxTorrent (A Fox LX832 extension)  | Consultant               |
| 2007 - 2009<br>Italy                  | <b>SOFSIS</b> Srl<br>Teacher of computer science basics  | Teacher                  |
| <b>2007 - 2011</b><br>Italy           | <b>High School L. Palmieri</b> - Vocational school of Industry and Handicrafts<br>Teacher of assembly and C languages for Microchip microcontrollers | Teacher                  |
| 2005 - 2009<br>Italy                  | <b>DRF Elettronica</b> sas<br>Fault search and servicing of domestic and light industrial appliances   | Internship               |

# **Acquired Skills**

| Development  |  |
|--------------|--|
| Languages    | C, C++, Python, Java, JavaScript, Assembly (MIPS and x86)  |
| Frameworks   | FreeRTOS, wolfMQTT, wolfSSL, wolfCrypt, ActiveMQ, OpenMPI, OpenMP, Facebook React,<br>Microchip Harmony, CUDA C++, OpenCL, TensorFlow, Keras, Hugging Face AI  |
| DBMS         | MySQL, SQLite, PostgreSQL  |
| Embedded     | I2C, SPI, UART, low-level protocols  |
| Networks     | TCP/IP, Ethernet, Wi-Fi, Bluetooth, ZigBee, Lo-Ra, and major protocols and techniques  |
| Security     | Authentication, Chain of Trust, Hash functions, Symmetric keys, Asymmetric cryptography,<br>Message authentication, Session keys, SSL/TLS, AES, RSA, Elliptic curves   |
| Web Servers  | Apache, Lighttpd, IIS, Tomcat, Microchip HTTP2 for embedded systems  |
| IDEs         | MPLAB-X, CLion, IntelliJ IDEA, PyCharm, WebStorm, Eclipse, Netbeans, PhpStorm  |
| Design Tools | Altium Designer, Eagle   |
| Debugging    | GDB Debugger for Linux machines, IDE-based debuggers, in-circuit debuggers for embedded systems, JTAG, ICSP  |
| Practical    |  |
| Assembly     | In-lab assembly and testing of prototypes of electronic circuits<br>Manual soldering and rework of surface mount components (SMD)<br>Handling of the assembly production line with turbo Pick & Place machines |
| Engineering  | Designing circuit diagrams and multi-layer printed circuit boards (PCB)  |
| Lab Tools    | Oscilloscope, Logic Analyzer, Multimeter, Capacitance Meter, Frequency Meter, Field Strength meter (TV/SAT), Function Generator, Rework Station  |
| Personal     |  |
| Empirical    | Ability to lead empirical research   |
| Presentation | Presenting at international conferences  |
| Coaching     | Leading, advising, and mentoring undergraduate, graduate, and Ph.D. students   |
| Teaching     | Lecturer and guest lecturer for academic and professional courses  |
| Business     | Experience in transforming concepts and prototypes into business products  |

### **Peer-Reviewed Publications**

| 36. | "Gaze-Guided Semi-Autonomous Quadruped Robot for Enhanced Assisted Living"<br>Paul Joseph, Davide Plozza, Luca Pascarella, Michele Magno<br>IEEE Sensors Applications Symposium  | SAS 2024                     |
|-----|--|------------------------------|
| 35. | <b>"Towards Summarizing Code Snippets Using Pre-Trained Transformers"</b><br>Antonio Mastropaolo, Matteo Ciniselli, <u>Luca Pascarella</u> , Rosalia Tufano, Emad Aghajani, Gabriele Bavota<br>International Conference on Program Comprehension   | ICPC 2024                    |
| 34. | <b>"Towards Real-Time Fast Unmanned Aerial Vehicle Detection Using Dynamic Vision Sensors"</b><br>Jakub Mandula, Jonas Kühne, <u>Luca Pascarella</u> , Michele Magno<br>International Instrumentation and Measurement Technology Conference  | I2MTC 2024                   |
| 33. | "Grayscale And Event-Based Sensor Fusion for Robust Steering Prediction for Self-driving Cars"<br>Luca Pascarella, <i>Michele Magno</i><br>IEEE Sensors Applications Symposium   | SAS 2023                     |
| 32. | "Log Statements Generation via Deep Learning: Widening the Support Provided to Developers"<br>Antonio Mastropaolo, Valentina Ferrari, <u>Luca Pascarella</u> , Gabriele Bavota<br>Journal of Systems and Software  | Journal (A)<br><b>JSS</b>    |
| 31. | <b>"On the Empirical Evidence of Microservice Logical Coupling. A Registered Report"</b><br>Dario Amoroso d'Aragona, <u>Luca Pascarella</u> , Andrea Janes, Valentina Lenarduzzi, Rafael Peñaloza, Davide Taibi<br>International Conference on Software Maintenance and Evolution                    | Conference (A)<br>ICSME 2023 |
| 30. | <b>"Breaks and Code Quality: Investigating the Impact of Forgetting on Software Development"</b><br>Dario Amoroso d'Aragona, <u>Luca Pascarella</u> , Andrea Janes, Valentina Lenarduzzi, Rafael Peñaloza, Davide Taibi<br>International Symposium on Empirical Software Engineering and Measurement | Conference (A)<br>ESEM 2023  |
| 29. | <b>"Microservice Logical Coupling: A Preliminary Validation"</b><br>Dario Amoroso d'Aragona, <u>Luca Pascarella</u> , Andrea Janes, Valentina Lenarduzzi, Rafael Peñaloza, Davide Taibi<br>International Conference on Software Architecture Companion   | Conference (A)<br>ICSA 2023  |
| 28. | <b>"Automating Code-Related Tasks Through Transformers: The Impact of Pre-training"</b><br><i>Rosalia Tufano, <u>Luca Pascarella</u>, Gabriele Bavota</i><br>International Conference on Software Engineering  | Conference (A*)<br>ICSE 2023 |
| 27. | <b>"Source Code Recommender Systems: The Practitioners' Perspective"</b><br>Matteo Ciniselli, <u>Luca Pascarella</u> , Emad Aghajani, Simone Scalabrino, Rocco Oliveto, Gabriele Bavota<br>International Conference on Software Engineering  | Conference (A*)<br>ICSE 2023 |
| 26. | "On the Robustness of Code Generation Techniques: An Empirical Study on GitHub Copilot"<br>Antonio Mastropaolo, <u>Luca Pascarella</u> , Emanuela Guglielmi, Matteo Ciniselli, Simone Scalabrino, Rocco Oliveto,<br>Gabriele Bavota<br>International Conference on Software Engineering              | Conference (A*)<br>ICSE 2023 |
| 25. | <b>"Microservice Logical Coupling: A Preliminary Validation"</b><br>Dario Amoroso d'Aragona, <u>Luca Pascarella</u> , Andrea Janes, Valentina Lenarduzzi, Davide Taibi<br>International Conference on Software Architecture Companion  | Conference (A)<br>ICSA 2023  |
| 24. | <b>"A Comprehensive Evaluation of SZZ Variants Through a Developer-informed Oracle"</b><br><i>Giovanni Rosa, <u>Luca Pascarella</u>, Simone Scalabrino, Rosalia Tufano, Gabriele Bavota, Michele Lanza, Rocco Oliveto</i><br>Journal of Systems and Software   | Journal (A)<br><b>JSS</b>    |
| 23. | <b>"Automated variable renaming: are we there yet?"</b><br>Antonio Mastropaolo, Emad Aghajani, <u>Luca Pascarella</u> , Gabriele Bavota<br>Journal of Empirical Software Engineering   | Journal (A)<br>EMSE          |
| 22. | "Regularity or Anomaly? On The Use of Anomaly Detection for Fine-Grained JIT Defect<br>Prediction"<br>Francesco Lomio, <u>Luca Pascarella</u> , Fabio Palomba and Valentina Lenarduzzi<br>Euromicro Conference on Software Engineering and Advanced Applications                                     | Conference (B)<br>SEAA 2022  |
| 21. | "To What Extent do Deep Learning-based Code Recommenders Generate Predictions<br>by Cloning Code from the Training Set?"<br><i>Matteo Ciniselli, <u>Luca Pascarella</u>, Gabriele Bavota</i><br>International Conference on Mining Software Repositories   | Conference (A)<br>MSR 2022   |
| 20. | <b>"Using Deep Learning to Generate Complete Log Statements"</b><br>Antonio Mastropaolo, <u>Luca Pascarella</u> , Gabriele Bavota<br>International Conference on Software Engineering  | Conference (A*)<br>ICSE 2022 |
| 19. | <b>"Using Pre-Trained Models to Boost Code Review Automation"</b><br><i>Rosalia Tufano, Simone Masiero, Antonio Mastropaolo, <u>Luca Pascarella</u>, Denys Poshyvanyk, Gabriele Bavota<br/>International Conference on Software Engineering</i>  | Conference (A*)<br>ICSE 2022 |

| 18. | <b>"Using Reinforcement Learning for Load Testing of Video Games"</b><br><i>Rosalia Tufano, Simone Scalabrino, <u>Luca Pascarella</u>, Emad Aghajani, Rocco Oliveto, Gabriele Bavota<br/>International Conference on Software Engineering</i>  | Conference (A*)<br>ICSE 2022     |
|-----|--|----------------------------------|
| 17. | <b>"An Empirical Study on the Usage of Transformer Models for Code Completion"</b><br>Matteo Ciniselli, Nathan Cooper, <u>Luca Pascarella</u> , Antonio Mastropaolo, Emad Aghajani, Denys Poshyvanyk,<br>Massimiliano Di Penta, Gabriele Bavota<br>IEEE Transactions on Software Engineering | Journal (A*)<br><b>TSE</b>       |
| 16. | <b>"An Empirical Study on Code Comment Completion"</b><br>Antonio Mastropaolo, Emad Aghajani, <u>Luca Pascarella</u> , Gabriele Bavota<br>International Conference on Software Maintenance and Evolution   | Conference (A)<br>ICSME 2021     |
| 15. | <b>"An Empirical Study on the Usage of BERT Models for Code Completion"</b><br><i>Matteo Ciniselli, Nathan Cooper, <u>Luca Pascarella</u>, Denys Poshyvanyk, Max Di Penta, Gabriele Bavota<br/>International Conference on Mining Software Repositories</i>                                  | Conference (A)<br>MSR 2021       |
| 14. | <b>"Logging Practices with Mobile Analytics: AnEmpirical Study on Firebase"</b><br>Julian Harty, Haonan Zhang, Lili Wei, <u>Luca Pascarella</u> , Maurício Aniche, Weiyi Shang<br>International Conference on Mobile Software Engineering and Systems  | Conference<br>MOBILESoft<br>2021 |
| 13. | <b>"Towards Automating Code Review Activities"</b><br>Rosalia Tufano, <u>Luca Pascarella</u> , Michele Tufano, Denys Poshyvanyk, Gabriele Bavota<br>International Conference on Software Engineering   | Conference (A*)<br>ICSE 2021     |
| 12. | <b>"Evaluating SZZ Implementations Through a Developer-informed Oracle"</b><br>Giovanni Rosa, <u>Luca Pascarella</u> , Simone Scalabrino, Rosalia Tufano, Gabriele Bavota, Michele Lanza, Rocco Oliveto<br>International Conference on Software Engineering                                  | Conference (A*)<br>ICSE 2021     |
| 11. | <b>"Healthcare Android Apps: A Tale of the Customers' Perspective"</b><br><i>Mariaclaudia Nicolai, <u>Luca Pascarella</u>, Fabio Palomba, Alberto Bacchelli</i><br>International Workshop on App Market Analytics  | Workshop<br>WAMA 2019            |
| 10. | "On the Performance of Method-Level Bug Prediction: A Negative Result"<br><u>Luca Pascarella</u> , Fabio Palomba, Alberto Bacchelli<br>Journal of Systems and Software   | Journal (A)<br><b>JSS</b>        |
| 9.  | "Classifying code comments in Java software systems"<br><u>Luca Pascarella</u> , Magiel Bruntink, Alberto Bacchelli<br>Journal of Empirical Software Engineering   | Journal (A)<br>EMSE              |
| 8.  | "Fine-Grained Just-In-Time Defect Prediction"<br><u>Luca Pascarella</u> , Fabio Palomba, and Alberto Bacchelli<br>Journal of Systems and Software  | Journal (A)<br><b>JSS</b>        |
| 7.  | "Information Needs in Contemporary Code Review"<br><u>Luca Pascarella</u> , Davide Spadini, Fabio Palomba, Magiel Bruntink, Alberto Bacchelli<br>Computer-Supported Cooperative Work and Social Computing <b>Best Paper Award Honorable Mention</b>  | Conference (A)<br>CSCW 2018      |
| 6.  | "How Is Video Game Development Different from Software Development in Open Source?"<br><u>Luca Pascarella</u> , Fabio Palomba, Massimiliano Di Penta, Alberto Bacchelli<br>International Conference on Mining Software Repositories  | Conference (A)<br>MSR 2018       |
| 5.  | <b>"A Graph-based Dataset of Commit History of Real-World Android apps"</b><br><i>Franz-Xaver Geiger, Ivano Malavolta, <u>Luca Pascarella</u>, Fabio Palomba, Dario Di Nucci, Alberto Bacchelli<br/>International Conference on Mining Software Repositories</i>                             | Conference (A)<br>MSR 2018       |
| 4.  | <b>"Self-Reported Activities of Android Developers"</b><br><u>Luca Pascarella</u> , Franz-Xaver Geiger, Fabio Palomba, Dario Di Nucci, Ivano Malavolta, Alberto Bacchelli<br>International Conference on Mobile Software Engineering and Systems   | Conference<br>MOBILESoft<br>2018 |
| 3.  | <b>"Re-evaluating Method-Level Bug Prediction"</b><br><u>Luca Pascarella</u> , Fabio Palomba, Alberto Bacchelli<br>International Conference on Software Analysis, Evolution and Reengineering  | Conference (A)<br>SANER 2018     |
| 2.  | <b>"Investigating Type Declaration Mismatches in Python"</b><br><u>Luca Pascarella</u> , Achyudh Ram, Azqa Nadeem, Dinesh Bisesser, Norman Knyazev, Alberto Bacchelli<br>International Workshop on Machine Learning Techniques for Software Quality Evaluation                               | Workshop<br>MaLTeSQuE<br>2018    |
| 1.  | "Classifying code comments in Java open-source software systems"<br><u>Luca Pascarella</u> and Alberto Bacchelli<br>Mining Software Repositories <b>Distinguished Paper Award</b>  | Conference (A)<br>MSR 2017       |

### A\*, A, B, and C scores for Conference and Journal according to the CORE Rankings Portal

## Teaching

| Spring '24       | "Introduction to Program Nao Robots for Robocup Competition" | ETH Zurich |
|------------------|--|------------|
| Fall <b>'</b> 23 | "Introduction to Program Nao Robots for Robocup Competition" | ETH Zurich |
| Spring '23       | "Introduction to Program Nao Robots for Robocup Competition" | ETH Zurich |

### **Professional Service**

| SAS 2024          | Conference: Sensors Applications Symposium (Special Session)        | Chair            |
|-------------------|---|------------------|
| MSR 2024          |   | Chair            |
|                   | Conference: Mining Software Repositories (Data and Tool)            | Chair            |
| SANER 2024        | Conference: Software Analysis, Evolution and Reengineering (Short)  |                  |
| NLBSE 2024        | Co-Located Workshop (Tool Competition)                              | Chair            |
| GE@ICSE '23       | Co-Located Workshop (Proceedings)                                   | Chair            |
| NLBSE 2023        | Co-Located Workshop (Tool Competition)                              | Chair            |
| TSE               | Journal: Transactions on Software Engineering                       | Invited reviewer |
| TOSEM             | Journal: Transactions on Software Engineering and Methodology       | Invited reviewer |
| EMSE              | Journal: Empirical Software Engineering                             | Invited reviewer |
| JSEP              | Journal: Software: Evolution and Process                            | Invited reviewer |
| TOSEM             | Journal: Transactions on Software Engineering and Methodology       | Invited reviewer |
| SPE               | Journal: Software: Practice and Experience                          | Invited reviewer |
| JSS               | Journal: Journal of Systems and Software                            | Invited reviewer |
| JCIS              | Journal: Journal of Computational Intelligence Systems              | Invited reviewer |
| SQJ               | Journal: Software Quality Journal                                   | Invited reviewer |
| ICSE 2024         | Conference: Software Engineering (SEIP Track)                       | PC member        |
| FSE 2023          | Conference: Foundations of Software Engineering (Tool Track)        | PC member        |
| ICSME 2023        | Conference: Software Maintenance and Evolution                      | PC member        |
| SANER 2023        | Conference: Software Analysis, Evolution and Reengineering          | PC member        |
| FSE 2022          | Conference: Foundations of Software Engineering (Tool Track)        | PC member        |
| <i>ICSME 2022</i> | Conference: Software Maintenance and Evolution (Tool Demo Track)    | PC member        |
| MSR 2022          | Conference: Mining Software Repositories                            | PC member        |
| SCAM 2022         | Conference: Source Code Analysis and Manipulation (NIER Track)      | PC member        |
| MSR 2022          | Conference: Mining Software Repositories (Data/Tool Showcase Track) | PC member        |
| ICPC 2022         | Conference: Program Comprehension (ERA Track)                       | PC member        |
| SCAM 2021         | Conference: Source Code Analysis and Manipulation                   | PC member        |
| MSR 2021          | Conference: Mining Software Repositories                            | PC member        |
| FSE 2021          | Conference: Foundations of Software Engineering (Tool Track)        | PC member        |
| FSE 2020          | Conference: Foundations of Software Engineering (Tool Track)        | PC member        |
| SOFTENG 20        | Conference: Advances and Trends in Software Engineering             | PC member        |
|                   | 0 0   |                  |

### **Other Contributions**

| 3. | "Augmented Fine-Grained Defect Prediction for Code Review"                    | Ph.D. Thesis   |
|----|---|----------------|
|    | <u>Luca Pascarella</u>  |                |
| 2. | "On The Effect Of Code Review On Code Smells"                                 | arXiv.org 2020 |
|    | <u>Luca Pascarella</u> , Davide Spadini, Fabio Palomba, and Alberto Bacchelli |                |
| 1. | "Classifying code comments in Java Mobile Applications"                       | MOBILESoft     |
|    | <u>Luca Pascarella</u>  | 2018           |
|    | Student Research Competition (Mobile Software Engineering and Systems)        |                |

# **Student Supervision**

| 15. | "Hardware and Firmware Development of a Multisensor PCB for Vital Sign Monitoring on<br>Glasses using mmWave Radar"<br>Pierin Candrian (ETH Zurich)                          | Supervisor<br>B.Sc Thesis        |
|-----|--|----------------------------------|
| 14. | <b>"Design of Open Multi-Sensor Smart Glasses Platform"</b><br><i>Fabian Sonnleitner</i> (ETH Zurich)  | Supervisor<br>B.Sc Thesis        |
| 13. | "Characterization of the Robustness at Adversarial Attacks in Exported Quantized TinyML"<br>Juric Karlo (ETH Zurich)   | Supervisor<br>B.Sc Thesis        |
| 12. | "Investigation and Benchmarking of Optical Flow Algorithms for Robotics Applications"<br>Mark Marolf, Moritz Martinolli, Marcello Krahforst (ETH Zurich)                     | Co-supervisor<br>Group Thesis    |
| 11. | "Design of Open Multi-Sensor Smart Glasses Platform"<br>Fabian Sonnleitner (ETH Zurich)  | Supervisor<br>B.Sc. Thesis       |
| 10. | "Combining Speech and Facial Feature Samples to Detect Different Emotions"<br>Athina Xenou Gavrieli (ETH Zurich)   | Supervisor<br>Semester Thesis    |
| 9.  | "Visual Sign Language Translation on Android-Based Smart Glasses"<br>Jeremy Gleixner (ETH Zurich)  | Co-supervisor<br>B.Sc. Thesis    |
| 8.  | "Hand-Detection for Sign Language Aid on Android-Based Smart Glasses"<br>Luca Specht (ETH Zurich)  | Co-supervisor<br>Semester Thesis |
| 7.  | <b>"Low Latency Real-Time UAV Detection Using Event-Based Camera"</b><br>Jakub Mandula (ETH Zurich)  | Co-supervisor<br>M.Sc. Thesis    |
| 6.  | "Adversarial Attacks for Deep Learning-based Autonomous Vehicles"<br>Arsim Dzambazoski (ETH Zurich)  | Co-supervisor<br>Semester Thesis |
| 5.  | "Improving and Evaluating Code Recommender Systems - Investigating the Role of Code<br>Context and Presenting a Novel Evaluation Framework"<br><i>Cristian Buratti</i> (USI) | Co-supervisor<br>M.Sc. Thesis    |
| 4.  | "STRIPE - A Web-based application to support researchers in running Mining Software<br>Repositories experiments"<br>Gregory Wullimann (USI)                                  | Co-supervisor<br>M.Sc. Thesis    |
| 3.  | "Identifying Bug-Introducing Changes Using the SZZ Algorithm"<br>Michele Damian (USI)  | Co-supervisor<br>B.Sc. Thesis    |
| 2.  | "Detecting and Visualizing Code Clones in GitHub Repositories"<br>Alessandro Romanelli (USI)   | Co-supervisor<br>B.Sc. Thesis    |
| 1.  | <b>"A Graph-based Dataset of Commit History of Real-World Android Apps"</b><br><i>Franz-Xaver Geiger</i> (TU Delft)  | Co-supervisor<br>M.Sc. Thesis    |
|     |  |                                  |

### Certificates

| 1. | "Abilitazione Scientifica Nazionale (ASN)" | 15/07/2024 |
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|    | Settore Concorsuale 01/B1 Informatica      | 15/07/2035 |

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