

# Michel Albonico

Associate Professor@UTFPR

Francisco Beltrão  
Brazil

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## Education

- 2014–2017 **Ph.D.**, *IMT Atlantique Bretagne Pays de la Loire*, Nantes, France  
Thesis: Controlling Cloud-Based Systems for Elasticity Testing
- 2008–2011 **M.Sc.**, *Federal University of Paraná (UFPR)*, Curitiba, Brazil  
Thesis: HadoopTest - A Testing Controller for MapReduce-based Systems
- 2008–2009 **Ed.**, *Federal University of Lavras (UFLA)*, Lavras, Brazil  
Monography: A Study of Information Systems Management Applied to the Enterprise SMO Internet Provider
- 2003–2007 **B.Sc.**, *University of the West of Santa Catarina (UNOESC)*, S. M. Oeste, Brazil  
Monography: A Study of the High Availability of a Distributed CORBA System over a VPN

## Languages

Portuguese	Native	<i>Brazilian Portuguese</i>
English	Advanced	<i>Long term collaborations with international institutions.</i>
French	Intermediate-Advanced	<i>Lived for 3 years in France.</i>
Spanish	Basic	<i>Live in the border with Argentina.</i>

## Experience

### Professional

- 2025–Present **Head of CS Department**, *UTFPR*, Brazil  
Leading the team, managing faculty and department physical infrastructure.
- 2012–Present **Associate Professor**, *UTFPR*, Brazil  
Teaching Software Engineering, Robotics Software, and Distributed Programming. Leader of the IntelAgir research group. Member of PPGCA Master's program (since 2024).
- 2018–2020 **Undergraduate Program Coordinator**, *UTFPR*, Brazil  
Coordinated a Computer Science program.
- 2019–Present **Software Engineering Consultant**, *TriXX Software*, Brazil  
Mentoring students in cross-platform application development and industry best practices.
- 2012 **Lecturer and Undergraduate Program Coordinator**, *Unisep*, Dois Vizinhos, Brazil  
Coordinated a undergraduate program and taught Computer Science courses.

- 2011–2012 **Lecturer**, *UNOESC*, S.M Oeste, Brazil  
Taught courses in software engineering and programming.
- 2008–2012 **Technical Course Coordinator and Lecturer**, *FAF*, Barracão, Brazil  
Coordinator a technical course and taught foundational computing courses.
- 2006–2008 **Infrastructure Manager**, *SMO Internet Provider*, S.M. Oeste, Brazil  
Managed network infrastructure and ensured service reliability.
- 2004–2006 **Entrepreneur**, *Dominio Informática*, Dionisio Cerqueira, Brazil  
Technical support and software maintainance.

## Training

- 2022 **Winter School in Software Engineering**, *National Research University Higher School of Econ, HSE*, Russia  
33 hours
- 2020 **CAA Training for BNI**, *INEP/MEC*, Brazil  
24 hours
- 2016 **TAROT Summer School**, *Télécom Sud Paris*, France  
40 hours
- 2016 **French for Foreigners (Advanced)**, *Maison des Chercheurs Étrangers, MCE*, France  
30 hours
- 2015 **Grammar and Punctuation**, *University of California, Irvine, UCI*, USA  
20 hours
- 2014–2015 **My English Online**, *Cengage Learning / CAPES, MEO*, Brazil  
240 hours
- 2014–2015 **French Course**, *Ecole des Mines de Nantes, EMN*, France  
30 hours
- 2014 **French Course**, *Ecole des Mines de Nantes, EMN*, France  
15 hours
- 2012–2013 **Intermediate and Advanced English**, *Open English, OE*, Brazil  
160 hours
- 2011 **MC1 - Cloud Computing: Elastic and Secure**, *Universidade Federal de Santa Catarina, UFSC*, Brazil  
8 hours
- 2011 **Expanding Horizons**, *FISK English Courses, FISK*, Brazil  
40 hours
- 2010 **Flying High**, *FISK English Courses, FISK*, Brazil  
40 hours
- 2009 **Spreading Wings**, *FISK English Courses, FISK*, Brazil  
40 hours
- 2009 **Aiming at the Sky**, *FISK English Courses, FISK*, Brazil  
40 hours

- 2007 **Asterisk VOIP**, *VOffice, VO*, Brazil  
40 hours
- 2007 **Basic 1**, *FSK English Courses, FISK*, Brazil  
40 hours
- 2006 **Structured Optical and Metallic Cabling**, *SENAC - São Miguel do Oeste, SENAC*, Brazil  
40 hours

### Research

- 2020–2021 **Postdoctoral Researcher**, *S2 Group, VU Amsterdam*, the Netherlands  
Research on green software engineering for robotic systems, focusing on ROS.
- 2023–2024 **Visiting Researcher**, *ISW, University of Stuttgart*, Germany  
Research on ML4GreenROS: Using machine learning to optimize ROS software efficiency.
- 2024 **Short-Term Research Visit**, *INESC TEC, University of Porto*, Portugal  
Research on static analysis of ROS software for energy efficiency.

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### Research Interests

- Primary focus Software Engineering for Robotics, ROS-based Robotics Software, Robotics in Education, and Energy-efficient Software.
- Collaborations Prof. Andreas Wortmann, ISW@University of Stuttgart, Germany  
Prof. Ivano Malavolta, S2 Group@VU Amsterdam, the Netherlands.  
Prof. Nuno Macedo, INESC/TEC@University of Porto, Portugal  
Prof. Felipe Franchetti, Louisiana State University (LSU), USA  
PPGCI Master's Program - UTFPR, Cornélio Procópio, Brazil  
PPGCA Master's Program - UTFPR, Curitiba, Brazil

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### Research Projects

- 2024–Present **Social Aspects of ROS Projects**, *UTFPR, LSU*  
Qualitative study of social aspects in open-source ROS projects.
- 2024–Present **HighConfigurable ROS**, *UTFPR, University of Porto*  
Static analysis of ROS software projects aiming to enhance energy efficiency and performance.
- 2023–Present **ML4GreenROS**, *UTFPR, University of Stuttgart, VU Amsterdam*  
Developing machine learning-based adaptive configurations to improve performance and energy efficiency in ROS-based robotic systems.
- 2020–2023 **ElasIoT: Elastic Solutions for IoT Software**, *UTFPR*  
Investigating scalable and adaptable cloud/edge strategies for IoT environments to enhance system performance and resource utilization.
- 2020–2023 **GreenROS**, *UTFPR, VU Amsterdam*  
Studying energy-efficient software architectures for robotic systems, leveraging software repository mining techniques.
- 2020–2022 **Green Tactics for Robotics Software**, *VU Amsterdam*  
Developing software engineering tactics for optimizing energy consumption in robotic applications.

- 2016–2017 **Dizolo**, *IMT Atlantique*  
Exploring constraints on data in cyber-physical systems for factories of the future.
- 2011–2011 **TaaS: Testing Applications for Cloud Computing**, *UTFPR, INRIA, UFSC*  
Building a framework for large-scale cloud testing using fault injection and test automation.

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## Research Funding

- 2024-Present Robotics Software Innovation Project, **Researcher**, funded by SEBRAE - Brazil (BRL 150,000 /  $\approx$  EUR 25,000).
- 2024 **Visiting Researcher**, funded by INESC TEC, University of Porto - Portugal ( $\approx$  BRL 30,000 / EUR 5,000).
- 2024 ML4GreenROS Project, **Coordinator/Postdoctoral Researcher**, funded by CNPq - Brazil (BRL 141,000 /  $\approx$  EUR 23,500).
- 2023-2024 **Visiting Expert Researcher**, funded by ICM - Germany ( $\approx$  BRL 124,200 / EUR 20,700).
- 2020-2021 **Postdoctoral Fellow**, funded by NWO - the Netherlands ( $\approx$  BRL 165,000 / EUR 27,500).
- 2018-2019 Smart Devices Project, **Coordinator/Developer**, funded by UTFPR - Brazil (BRL 30,000 /  $\approx$  EUR 5,000).
- 2018-2020 ElasoT Project, **Coordinator/Researcher**, funded by CNPq and Fundação Araucária - Brazil (BRL 39,940 /  $\approx$  EUR 6,650).
- 2017-2018 IoTriXX Dashboard Project, **Coordinator/Researcher/Developer**, funded by Fundação Araucária - Brazil (BRL 120,000 /  $\approx$  EUR 20,000).
- 2017-2018 SmartLock Project, **Researcher/Developer**, funded by Fundação Araucária - Brazil (BRL 120,000 /  $\approx$  EUR 20,000).
- 2014-2017 Cloud Elasticity Testing Project, **Coordinator/Ph.D. candidate**, funded by CAPES - Brazil (BRL 690,000 /  $\approx$  EUR 115,000).

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## Academic Outreach

- 2023-Present Transformar Project (building equipment for robotics/programming teaching), **Researcher**, Public Elementary Schools, Extension/Innovation Project, 2 hours/week
- 2022-2023 Robotics in Education, **Coordinator**, Public Elementary Schools, Extension Project, 30 hours
- 2019-2021 Safety at Work App, **Coordinator/Tech Leader**, Vibra SA (private company), Innovation Project, 100 hours
- 2018-2019 Computing and Electronic Prototyping with High-Ability Students, **Coordinator/Teacher**, Public Elementary Schools, Extension Project, 30 hours

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## Leadership

- 2025-Present Head of Francisco Beltrão's Computer Science Department, UTFPR - Brazil.
- 2018-Present Head of IntelAgir Research Group, UTFPR - Brazil.
- 2018-2020 Computer Science undergraduate program Coordinator, UTFPR - Brazil.

- 2011 Computer Science undergraduate program Coordinator, Unisep - Brazil.
- 2009-2011 Computer Science undergraduate program Coordinator, FAF - Brazil.

## Mentorship

### Ongoing Supervisions

#### Master's Theses

- 2025-Present Rodrigo Iser. Analysis of Performance and Energy Consumption of Simulation Tools for ROS. Master's thesis in Informatics - Federal University of Technology - Paraná (UTFPR). (Co-supervisor).
- 2024-Present Ricardo de Souza. A Gamification Tool for Teaching Green/Energy-Efficient Programming. Master's thesis in Applied Computing - Federal University of Technology - Paraná (UTFPR). (Co-supervisor).
- 2024-Present Maciel Felipe Borges. A Study on the Evolution of the Robot Operating System (ROS) with a Focus on Energy Efficiency. Master's thesis in Informatics - Federal University of Technology - Paraná (UTFPR). (Co-supervisor).

#### Undergrad. Research

- 2024-Present Alexia Celina Nielsen. Empirical Experiments on the Energy Consumption of Robotics Algorithms in ROS - Topic-Based/Publish-Subscribe Communication. Undergraduate Research (Information Systems - FB) - Federal University of Technology - Paraná (UTFPR), Fundação Araucária. (Supervisor).
- 2024-Present Manuela Bechara Cannizza. Understanding the impact of programming language on ROS energy efficiency. (Information Systems - FB) - Federal University of Technology - Paraná (UTFPR). (Supervisor).

### Completed Supervisions

#### Master's Theses

- 2024-Present Alexander Kraus. Continuous Optimization of ROS Configurations for Energy Efficiency. Master's thesis in ISW - University of Stuttgart. (Co-supervisor).
- 2021 Milica Dordevic. Empirical Evaluation of Computation Offloading Strategies in Robotic Systems. Master's thesis in Computer Science - Vrije Universiteit. Co-supervisor: Michel Albonico.
- 2021 Kwame Chan Jong Chu. A Study on the Resource Utilization of SLAM Algorithms on Simulated and Real-World ROS Systems. Master's thesis in Computer Science - Vrije Universiteit. Co-supervisor: Michel Albonico.
- 2021 Engel Hamer. Resource Utilization of 2D SLAM Algorithms in ROS-Based Systems: an Empirical Evaluation. Master's thesis in Computer Science - Vrije Universiteit. Co-supervisor: Michel Albonico.

#### Bachelor Project

- 2023 Juliano Soares. Planning of Basic Electronics Content for Introductory Arduino. Specialization Thesis in Informatics - Federal University of Technology - Paraná (UTFPR). Supervisor: Michel Albonico.
- 2023 Lucas Augusto Peruffo. Development of an Interaction Device for Immersive Education Environments. Undergraduate Thesis in Informatics - Federal University of Technology - Paraná (UTFPR). Supervisor: Michel Albonico.
- 2023 Everson Borges da Rosa. InteractiveEdu: Prototyping an Interactive Floor as a Learning Tool Using Open Technology. Undergraduate Thesis in Informatics - Federal University of Technology - Paraná (UTFPR). Supervisor: Michel Albonico.
- 2021 Gustavo Henrique B. Slomski. OiArduBot: A Domain-Specific Language for Teaching Robotics with Open Technology. Undergraduate Thesis in Informatics - Federal University of Technology - Paraná (UTFPR). Supervisor: Michel Albonico.
- 2022 Alexandre Juarez Corneau. Empirical Study of Software for IoT and Robotics Systems. Undergraduate Research (Informatics) - Federal University of Technology - Paraná (UTFPR), Fundação Araucária. Supervisor: Michel Albonico.
- 2021 Joe Hopkinson. Benchmarking Path Coverage Algorithms in ROS-Based Systems. Undergraduate Thesis in Computer Science - Vrije Universiteit. Supervisor: Michel Albonico.
- 2021 Etienne Herbeaux. Benchmarking SLAM Algorithms in ROS-Based Systems. Undergraduate Thesis in Computer Science - Vrije Universiteit. Supervisor: Michel Albonico.
- 2021 Karl Plagemann. Benchmarking the Energy Efficiency of Different ROS Versions and Configurations. Undergraduate Thesis in Computer Science - Vrije Universiteit. Supervisor: Michel Albonico.
- 2020 Gustavo Slomski. An Optimized Programming Language for Teaching Educational Robotics with Open Technologies. Undergraduate Thesis in Informatics - Federal University of Technology - Paraná (UTFPR). Supervisor: Michel Albonico.
- 2012 Cleverson Massaroli. Comparison Between Mahou and Relational Database Management Systems. Undergraduate Thesis in Information Systems - União de Ensino do Sudoeste do Paraná. Supervisor: Michel Albonico.
- 2012 Paulo Vitor Cogo. Project for the Implementation of Optical Fiber for the Margarida Galvan Neighborhood in Dois Vizinhos-PR. Undergraduate Thesis in Information Systems - União de Ensino do Sudoeste do Paraná. Supervisor: Michel Albonico.
- 2012 Fernando Zotti and Fernando Socolovski. Web System for Fuel Station Users. Undergraduate Thesis in Information Systems - União de Ensino do Sudoeste do Paraná. Supervisor: Michel Albonico.
- 2012 Henrique Koerich. A Study on Cloud Computing with Application of Software Quality Testing. Undergraduate Thesis in Information Systems - União de Ensino do Sudoeste do Paraná. Supervisor: Michel Albonico.
- 2011 Andreia Salete Mayer Eberhart. Automation of Residential Equipment Using Java. Undergraduate Thesis in Internet Systems Technology - Faculdade da Fronteira. Supervisor: Michel Albonico.

- 2011 Diego Delazeri. System for Updating Championship Classification Tables. Undergraduate Thesis in Internet Systems Technology - Faculdade da Fronteira. Supervisor: Michel Albonico.
- 2011 Lucas Ecco. Measurement of Degradation by Noise in Wired and Wireless Networks. Undergraduate Thesis in Internet Systems Technology - Faculdade da Fronteira. Supervisor: Michel Albonico.
- 2011 Everton da Silva. System for Assisting Software Acquisition. Undergraduate Thesis in Internet Systems Technology - Faculdade da Fronteira. Supervisor: Michel Albonico.
- 2011 Alex Roberto Grunwaldt and Edson Renato Drews. System for Access Ticketing and Ad Mining on News Websites Applied to the Click Amerios Portal. Undergraduate Thesis in Internet Systems Technology - Universidade do Oeste de Santa Catarina. Supervisor: Michel Albonico.
- 2011 Jean Carlos Copati. Call Management System - Help Desk. Undergraduate Thesis in Internet Systems Technology - Universidade do Oeste de Santa Catarina. Supervisor: Michel Albonico.
- 2010 Douglas Geova Kaktin. Comparison of Similarity Functions for Open Source Database Management Systems. Undergraduate Thesis in Internet Systems Technology - Faculdade da Fronteira. Supervisor: Michel Albonico.
- 2010 Marcio Rodrigo Backes. Algorithm for Searching and Sorting Log Files Using the MapReduce Framework. Undergraduate Thesis in Internet Systems Technology - Faculdade da Fronteira. Supervisor: Michel Albonico.
- 2009 Daniely da Silva Loiola. Cedro News - Information Portal for the City of São José do Cedro. Undergraduate Thesis in Informatics Technology - Faculdade da Fronteira. Supervisor: Michel Albonico.
- 2009 Cleder F. Perufo. TECHNICALL - System for Technical Support Management of Wireless Providers. Undergraduate Thesis in Informatics Technology - Faculdade da Fronteira. Supervisor: Michel Albonico.

Undergrad.  
Research

- 2021 Bruno Cardoso. Preliminary Listing of Works on Robotic Internet of Things (IoRT) Software through Systematic Literature Review. Undergraduate Research (Informatics) - Federal University of Technology - Paraná (UTFPR). Supervisor: Michel Albonico.
- 2021 Berry Chen. Extracting Architectural Components from ROS Executions. Undergraduate Research (Computer Science) - Vrije Universiteit. Supervisor: Michel Albonico.
- 2021 Leonardo Pilatti. Programming and Conducting Experiments with TurtleBot. Undergraduate Research (Informatics) - Federal University of Technology - Paraná (UTFPR), Fundação Araucária. Supervisor: Michel Albonico.
- 2021 Wilson Lira. Automation of Scripts for Data Extraction from Google Scholar. Undergraduate Research (Informatics) - Federal University of Technology - Paraná (UTFPR). Supervisor: Michel Albonico.

- 2020 Bruno Cardoso. Mining Software Repositories of IoRT. Undergraduate Research (Informatics) - Federal University of Technology - Paraná (UTFPR), Fundação Araucária. Supervisor: Michel Albonico.

#### Other Supervisions

- 2024 Li Lin. Development of Artificial Intelligence Models for Selecting ROS Configuration Parameters. ISW - University of Stuttgart. Supervisor: Michel Albonico.
- 2024 Monisha Chandrashekar. Adaptations of an Open-Source Energy Meter for Robotics Experiments. ISW - University of Stuttgart. Supervisor: Michel Albonico.

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### Awards and Recognition

- 2024 Elected Head of the Computer Science Department at UTFPR - Francisco Beltrão Campus.
- 2023 Awarded a postdoctoral fellowship funded by CNPq (Brazil) for research in Germany.
- 2023 Received the Best Paper Award at the Workshop on Robotics Software Engineering.
- 2023 Recognized as a Distinguished Reviewer at the Brazilian Symposium on Informatics in Education.
- 2018 Elected Coordinator of the Undergraduate Program in Computer Science at UTFPR.
- 2014 Awarded a full Ph.D. scholarship in France, funded by CAPES (Brazil).
- 2012 Ranked first for the Assistant Professor position at UTFPR.

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### Professional Services

- 2025 *External reviewer* of Frontiers in Robotics and AI.
- Program committee member* of European Conference on Software Architecture (ECSA).
- 2024 *External reviewer* of Transactions on Software Engineering and Methodology (TOSEM).
- External reviewer* of Software Quality Journal (SQJ).
- Program committee member* of Brazilian Symposium on Informatics in Education (SBIE)
- Program committee member* of Brazilian Symposium on Software Engineering (SBES)
- Program committee member* of Workshop on Robotics Software Engineering (RoSE)
- External reviewer* of Frontiers in Robotics and AI.
- Program committee member* of Mining Software Repositories (MSR).
- Program committee member* of International Conference on Intelligent Robots and Systems (IROS).
- External reviewer* of Journal of the Brazilian Computer Society (JBCS).
- External reviewer* of Internacional Journal of Robotics Research (IJRR)



- External reviewer* of European Conference on Software Architecture (ECSA) - Post Proceedings.
- External reviewer* of Applied Science Open Access Journal.
- 2023 *Program committee member* of Brazilian Symposium on Software Engineering (SBES) -Insightful Ideas and Emerging Results (IIER)
- Program committee member* ofInternational Symposium on Software Testing and Analysis (ISSTA) - Artifact Evaluation (AE)
- External reviewer* of Open Research Europe.
- Program committee member* of Workshop on Informatics in Schools (WIE), Brazil
- Program committee member* of Mining Software Repositories (MSR) - Industrial Track
- Program committee member* of Context-aware, Autonomous, and Smart Architectures (CASA)@ECSA.
- 2022 *Program committee member* of Workshop on Robotics Software Engineering (RoSE)
- Program committee member* of International Conference on Open Source Systems (OSS)
- Program committee member* of Workshop on Mining Software Repositories for Software Architecture (MSR4SA)
- Program committee member* of Mining Software Repositories (MSR)
- Program committee member* of Information and Software Technology (IST)
- Sub-reviewer* of International Conference on Software Engineering (ICSE).
- External reviewer* of European Conference on Software Architecture (ECSA) - Post Proceedings.
- Program committee member* of Context-aware, Autonomous, and Smart Architectures (CASA)@ECSA.
- 2021 *Program committee member* of Workshop on Robotics Software Engineering
- External reviewer* of Latin American Congress on Free Software and Open Technologies (Latinoware)
- External reviewer* of Journal of the Brazilian Computer Society (JBCS).
- External reviewer* of IEEE Software.
- External reviewer* of IEEE Sensors Letters.
- Sub-reviewer* of International Conference on Software Engineering (ICSE).
- Program committee member* of Context-aware, Autonomous, and Smart Architectures (CASA)@ECSA.
- External reviewer* of IOP e-books.
- 2018 *Program committee member* of Regional School of Software Engineering (ERES) - Dois Vizinhos, Brazil

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## Teaching

## UTFPR

- 2024–Present **Bachelor's in Information Systems:** Requirements Engineering; Software Design and Modeling; Software Construction, Validation and Maintenance.
- 2019–Present **Bachelor's in Computer Science:** Educational Robotics; Distributed Applications.
- 2023 **Bachelor's in Computer Science:** Software Engineering, Systems Analysis.
- 2022 **Bachelor's in Computer Science:** Software Engineering; Systems Analysis; Distributed Applications.
- 2021 **Bachelor's in Computer Science:** Distributed Applications; Software Engineering; Introduction to Programming Languages.
- 2020 **Bachelor's in Computer Science:** Computer Architecture; Software Engineering.
- 2019 **Bachelor's in Computer Science:** Computer Architecture; Distributed Applications.
- 2018 **Bachelor's in Computer Science:** Computing 1 (Algorithms); Computer Networks; Distributed Applications.
- 2017 **Bachelor's in Computer Science:** Computer Networks; Software Engineering; Data Structures.
- 2013 **Bachelor's in Computer Science:** Databases; Computing I (Algorithms); Instrumental Informatics; Frameworks for Data Storage and Persistence.

## FAF

- 2012 **Technology in Internet Systems:** Databases II; Programming Language III (Java for Web).
- 2011 **Technology in Internet Systems:** Server Administration, Basic Internet Environment Concepts; E-commerce and Marketing; Object-Oriented Programming.
- 2010 **Technology in Internet Systems:** Server Administration for the Internet; Databases II; Multimedia Systems for the Internet Environment.
- 2009 **Technology in Internet Systems:** Databases II; Programming Language II (HTML/PHP); Basic Informatics Concepts.

## Unisep

- 2011 **Bachelor's in Information Systems:** Computer Networks II; Computer Networks I; Distributed Systems; Web Infrastructure.
- 2010 **Bachelor's in Information Systems:** Distributed Systems.
- 2009 **Bachelor's in Information Systems:** Complementary Curricular Activities II (Basic Linux).

## UNOESC

- 2012 **Bachelor's in Information Systems:** Theory of Computation; Final Graduation Project II; Databases I; Advanced Topics in Databases.

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## Publications

### Journal Articles

- 2025 HAMER, E.; ALBONICO, M.; MALAVOLTA, I. **Resource Utilization of 2D SLAM Algorithms in ROS-Based Systems: an Empirical Evaluation.** *Journal of the Brazilian Computer Society*, 2025.
- 2025 ALBONICO, M.; CANIZZA, M. B.; WORTMANN, Andreas. **Energy Efficiency in ROS Communication: A Comparison Across Programming Languages and Workloads.** *Frontiers In Robotics And AI*, vol. 12, p. 1, 2025.
- 2025 SOLIMAN, M.; ALBONICO, M.; MALAVOLTA, I.; WORTMANN, Andreas. **Mining Software Repositories for Software Architecture – a Systematic Mapping Study.** *Information And Software Technology*, vol. 1, p. 1, 2025.
- 2023 ALBONICO, M.; DORDEVIC, M.; HAMER, E.; MALAVOLTA, I. **Software engineering research on the Robot Operating System: A systematic mapping study.** *Journal of Systems and Software*, vol. 197, p. 111574, 2023.
- 2023 DORDEVIC, M.; ALBONICO, M.; LEWIS, G. A.; MALAVOLTA, I.; LAGO, P. **Computation Offloading for Ground Robotic Systems Communicating over WiFi – An Empirical Exploration on Performance and Energy Trade-offs.** *Empirical Software Engineering (EMSE)*, 2023.
- 2020 VARELA, P.; ALBONICO, M.; JUSTINO, E.; ASSIS, J. **Authorship Attribution in Latin Languages using Stylometry.** *IEEE Latin America Transactions*, vol. 18, p. 729-735, 2020.

#### Book Chapters

- 2018 ALBONICO, MICHEL; MOTTU, JEAN-MARIE; SUNYÉ, GERSON; ALVARES, FREDERICO. **Controlling Cloud-Based Systems for Elasticity Test Reproduction.** *Communications in Computer and Information Science*, Springer International Publishing, vol. 864, p. 200-222, 2018.

#### Conference Papers

- 2024 ALBONICO, M.; VARELA, PAULO J.; ROHLING, ADAIR; WORTMANN, Andreas. **Energy Efficiency of ROS Nodes in Different Languages: Publisher-Subscriber Case Studies.** In: *International Workshop on Robotics Software Engineering (RoSE)*, 2024, Lisboa, Portugal.
- 2023 ALBONICO, MICHEL; VARELA, PAULO JÚNIOR. **A Report on the Use of Chat-GPT in Software Engineering and Systems Analysis Courses.** In: *SBES 2023: XXXVII Brazilian Symposium on Software Engineering*, Campo Grande, Brazil. Proceedings of the XXXVII Brazilian Symposium on Software Engineering, ACM, p. 303.
- 2022 MAYER, ROBERTO; VARELA, PAULO; ALBONICO, MICHEL; ROHLING, ADAIR; STEFFEN, VILMAR. **Experiências de um Jogo Educacional Digital para auxiliar no Processo de Ensino-Aprendizagem de Transformações Químicas para o Ensino Médio.** In: *Workshop de Informática na Escola*, 2022, Brasil. Anais do XXVIII Workshop de Informática na Escola (WIE 2022), p. 59.

- 2022 SLOMSKI, GUSTAVO; JOSE ROHLING, ADAIR; VARELA, PAULO; ALBONICO, MICHEL. **HelloArduBot: A DSL For Teaching Programming To Incoming Students With Open-source Robotic (OSR) Projects**. In: *OpenSym 2022: The 18th International Symposium on Open Collaboration*, 2022, Madrid, Spain. The 18th International Symposium on Open Collaboration, p. 1.
- 2021 ALBONICO, MICHEL; VARELA, PAULO; ROHLING, A. J.; SOARES, J. **Mining Evidences of Internet of Robotic Things (IoRT) Software from Open Source Projects**. In: *Brazilian Symposium on Software Components, Architectures, and Reuse*, 2021, Joinville. SBCARS, 2021.
- 2021 ALBONICO, MICHEL; MALAVOLTA, IVANO; PINTO, GUSTAVO; GUZMAN, EMITZA; CHINNAPPAN, KATERINA; LAGO, PATRICIA. **Mining Energy-Related Practices in Robotics Software**. In: *2021 IEEE/ACM 18th International Conference on Mining Software Repositories (MSR)*, 2021, Madrid. 2021 IEEE/ACM 18th International Conference on Mining Software Repositories (MSR), p. 483.
- 2019 ALBONICO, MICHEL; VARELA, PAULO. **Towards Short Test Sequences for Performance Assessment of Elastic Cloud-based Systems**. In: *9th International Conference on Cloud Computing and Services Science*, 2019, Heraklion. Proceedings of the 9th International Conference on Cloud Computing and Services Science, p. 165.
- 2019 FIORIO, ROSAINE; VARELA, PAULO; ALBONICO, MICHEL; SEMLER, JHONNATAN RICARDO. **Linguisticun: Uma Ferramenta de Auxílio ao Ensino da Língua Portuguesa e à Linguística Computacional**. In: *XXX Simpósio Brasileiro de Informática na Educação (Brazilian Symposium on Computers in Education)*, 2019, Brasília. Anais do XXX Simpósio Brasileiro de Informática na Educação (SBIE 2019), p. 11.
- 2018 VARELA, PAULO J.; ALBONICO, MICHEL; JUSTINO, EDSON J. R.; BORTOLOZZI, FLAVIO. **A Computational Approach for Authorship Attribution on Multiple Languages**. In: *2018 International Joint Conference on Neural Networks (IJCNN)*, 2018, Rio de Janeiro. 2018 International Joint Conference on Neural Networks (IJCNN), p. 1.
- 2017 ALBONICO, MICHEL; ALESIO, STEFANO DI; MOTTU, JEAN-MARIE; SEN, SAGAR; SUNYE, GERSON. **Generating Test Sequences to Assess the Performance of Elastic Cloud-Based Systems**. In: *2017 IEEE 10th International Conference on Cloud Computing (CLOUD)*, 2017, Honolulu. 2017 IEEE 10th International Conference on Cloud Computing (CLOUD), p. 383.
- 2017 ALBONICO, MICHEL; MOTTU, JEAN-MARIE; SUNYÉ, GERSON; ALVARES, FREDERICO. **Making Cloud-based Systems Elasticity Testing Reproducible**. In: *7th International Conference on Cloud Computing and Services Science*, 2017, Porto. Proceedings of the 7th International Conference on Cloud Computing and Services Science, p. 523.

- 2016 ALBONICO, MICHEL; MOTTU, JEAN-MARIE; SUNYÉ, GERSON. **Monitoring-Based Testing of Elastic Cloud Computing Applications**. In: *Companion Publication for ACM/SPEC*, 2016, Delft. Companion Publication for ACM/SPEC on International Conference on Performance Engineering - ICPE '16 Companion, p. 3.
- 2016 ALBONICO, MICHEL; MOTTU, JEAN-MARIE; SUNYÉ, GERSON. **Controlling the elasticity of web applications on cloud computing**. In: *31st Annual ACM Symposium*, 2016, Pisa. Proceedings of the 31st Annual ACM Symposium on Applied Computing - SAC '16, p. 816.
- 2016 ALBONICO, MICHEL; BENELALLAM, AMINE; MOTTU, JEAN-MARIE; SUNYÉ, GERSON. **A DSL-based approach for elasticity testing of cloud systems**. In: *International Workshop on Domain-Specific Modeling - DSM 2016*, 2016, Amsterdam. Proceedings of the International Workshop on Domain-Specific Modeling, p. 8.
- 2011 MARYNOWSKI, J. E.; ALBONICO, M.; ALMEIDA, E. C.; SUNYE, G. **Testing MapReduce-based Systems (Short Paper)**. In: *Simpósio Brasileiro de Banco de Dados*, 2011, Florianópolis. Anais do Simpósio Brasileiro de Banco de Dados, 2011.
- 2011 VARELA, P. J.; ALBONICO, M.; GUARDA, Fabricio M.; CASARIN, N. V. **Um Panorama da Indústria de Software da Região Oeste de Santa Catarina Acerca do Uso das Boas Práticas de Engenharia de Software**. In: *Encontro Paranaense de Computação*, 2011, Cascavel. IV Encontro Paranaense de Computação.
- 2010 ALBONICO, M.; VARELA, P. J. **A Utilização de Boas Práticas de Engenharia de Software sob a Ótica das Softhouses do Oeste Catarinense**. In: *Seminário Nacional de Iniciação Científica - SIC*, 2010, Dois Vizinhos. Seminário Nacional de Iniciação Científica.

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