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https://scholar.google.com/citations?user=26yB7xkAAAAJ&hl
Citations: 354, *h-index:* 10

Employment History

2025 – · · ·	**Postdoc Researcher** - Department of Computer Science and Operations Research (DIRO) at the University of Montreal, Montreal, Canada
2023 – 2025	**University Assistant/Postdoc Researcher** - Institute of Software Systems Engineering - Johannes Kepler University, Linz, Austria
2020 – 2023	**University Assistant/Predoc Researcher** - Institute of Software Systems Engineering - Johannes Kepler University, Linz, Austria
2019 – 2020	**Full Stack Developer** - Capataz, Sustainable Livestock, Alegrete RS - Brazil.
	Full Stack Developer - EletroVirtual, Alegrete RS - Brazil.
2017 – 2017	**Full Stack Developer** - Porthal Sistemas, Alegrete RS - Brazil.
2014 – 2014	**Front End Developer** - GreenWays2Go, Chicago IL - USA.

Education

2021 – 2023	**Ph.D. Computer Science** at Johannes Kepler University, Linz, Austria. Thesis title: *Improving Consistency Maintenance for Collaborative Software Systems Engineering.*
2019 – 2020	**M.Sc. Software Engineering** at Universidade Federal do Pampa, Alegrete, Brazil. Thesis title: *PAxSPL: A generic framework to support the planning of SPL reengineering.*
2012 – 2018	**B.Sc. Software Engineering** at Universidade Federal do Pampa, Alegrete, Brazil. Thesis title: *PAxSPL: a Feature Retrieval Process for Software Product Line Re-engineering.*

Research Publications

Journal Articles

1. M. Homolka, L. Marchezan, W. KG Assunção, and A. Egyed, ""What really happened to my models?" Extending co-evolution with cross-layer traceability in metamodel-model histories," *Empirical Software Engineering*, vol. 31, no. 2, p. 38, 2026. DOI: 10.1007/s10664-025-10773-4
2. W. K. G. Assunção, L. Marchezan, L. Arkoh, A. Egyed, and R. Ramler, "Contemporary software modernization: Strategies, driving forces, and research opportunities," *ACM Trans. Softw. Eng. Methodol.*, Dec. 2024, ISSN: 1049-331X. DOI: 10.1145/3708527
3. E. Herac, L. Marchezan, W. K. G. Assunção, and A. Egyed, "Conflict-based change awareness for collaborative model-driven software engineering," *Journal of Object Technology*, vol. 23, no. 3, pp. 1–14, Jul. 2024, The 20th European Conference on Modelling Foundations and Applications (ECMFA 2024), ISSN: 1660-1769. DOI: 10.5381/jot.2024.23.3.a7
4. C. Mayr-Dorn, C.-C. Ratiu, L. Marchezan, F. Keplinger, A. Egyed, and G. Walden, "Actionable light-weight process guidance," *Journal of Systems and Software*, vol. 214, p. 112 064, 2024, ISSN: 0164-1212. DOI: https://doi.org/10.1016/j.jss.2024.112064
5. L. Marchezan, R. Kretschmer, W. Assunção, A. Reder, and A. Egyed, "Generating repairs for inconsistent models," *Software and Systems Modeling*, 2022, ISSN: 16191374. DOI: 10.1007/s10270-022-00996-0

6 L. Marchezan, E. Rodrigues, W. Assunção, M. Bernardino, F. Basso, and J. Carbonell, "Software product line scoping: A systematic literature review," *Journal of Systems and Software*, vol. 186, 2022, ISSN: 01641212. DOI: 10.1016/j.jss.2021.111189

7 M. Tröls, L. Marchezan, A. Mashkoor, and A. Egyed, "Instant and global consistency checking during collaborative engineering," *Software and Systems Modeling*, vol. 21, 6 2022, ISSN: 16191374. DOI: 10.1007/s10270-022-00984-4

8 A. Iung et al., "Systematic mapping study on domain-specific language development tools," *Empirical Software Engineering*, vol. 25, 5 2020, ISSN: 15737616. DOI: 10.1007/s10664-020-09872-1

9 L. Marchezan, E. M. Rodrigues, M. Bernardino, and F. P. Basso, "PAxSPL: A feature retrieval process for software product line reengineering," *Software - Practice and Experience*, vol. 49, 8 2019, ISSN: 1097024X. DOI: 10.1002/spe.2707

10 M. Bernardino, E. Rodrigues, A. Zorzo, and L. Marchezan, "Systematic mapping study on mbt: Tools and models," *IET Software*, vol. 11, 4 2017, ISSN: 17518806. DOI: 10.1049/iet-sen.2015.0154

Conference Proceedings

1 S. V. Desai, S. Bhide, S. Serbout, L. Marchezan, and W. K. G. Assunção, "Priotestci: Efficient test case prioritization in github workflows for ci optimization," in *40th IEEE/ACM International Conference on Automated Software Engineering (ASE): Tool Demonstration*, 2025.

2 M. Homolka, L. Marchezan, W. K. Assunçao, and A. Egyed, "Going from the past back to the future: Incrementally reconstructing a metamodel history," in *Proceedings of the ACM/IEEE 28th International Conference on Model Driven Engineering Languages and Systems*, 2025.

3 W. K. G. Assunção, L. Marchezan, A. Egyed, and R. Ramler, "Contemporary software modernization: Perspectives and challenges to deal with legacy systems," in *2030 Software Engineering*, 2024. eprint: 2407.04017. URL: https://arxiv.org/abs/2407.04017

4 M. Homolka, L. Marchezan, W. K. Assunção, and A. Egyed, ""Don't Touch my Model!" Towards Managing Model History and Versions during Metamodel Evolution," in *2024 IEEE/ACM 45th International Conference on Software Engineering: New Ideas and Emerging Results (ICSE-NIER)*, 2024.

5 M. Homolka, L. Marchezan, W. K. Assunçao, and A. Egyed, ""What Happened to my Models?" History-Aware Co-Existence and Co-Evolution of Metamodels and Models," in *International Conference on Software Maintenance and Evolution (ICSME)*, 2024.

6 L. Marchezan, W. K. Assunçao, E. Herac, S. Shafiq, and A. Egyed, "Exploring dependencies among inconsistencies to enhance the consistency maintenance of models," in *IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER)*, 2024.

7 L. Marchezan, W. K. G. Assunção, E. Herac, and A. Egyed, "Model-based maintenance and evolution with genai: A look into the future," in *2030 Software Engineering*, 2024. eprint: 2407.07269. URL: https://arxiv.org/abs/2407.07269

8 L. Marchezan, M. Homolka, A. Blokhin, W. K. G. Assunção, E. Herac, and A. Egyed, "A tool for collaborative consistency checking during modeling," in *Proceedings of the ACM/IEEE 27th International Conference on Model Driven Engineering Languages and Systems*, ser. MODELS Companion '24, Linz, Austria: Association for Computing Machinery, 2024, 655–659. DOI: 10.1145/3652620.3688558

9 E. Herac, W. Assunção, L. Marchezan, R. Haas, and A. Egyed, "A flexible operation-based infrastructure for collaborative model-driven engineering," 2, The 19th European Conference on Modelling Foundations and Applications (ECMFA 2023), vol. 22, Jul. 2023, 2:1–14. DOI: 10.5381/jot.2023.22.2.a5

10 L. Marchezan, W. K. G. Assunção, G. K. Michelon, and A. Egyed, "Do developers benefit from recommendations when repairing inconsistent design models? a controlled experiment," in *Proceedings*

of the 27th International Conference on Evaluation and Assessment in Software Engineering, ser. EASE '23, Oulu, Finland: Association for Computing Machinery, 2023, 131–140. DOI: 10.1145/3593434.3593482

11 L. Marchezan, W. K. G. Assunção, E. Herac, F. Keplinger, A. Egyed, and C. Lauwerys, "Fulfilling industrial needs for consistency among engineering artifacts," in *2023 IEEE/ACM 45th International Conference on Software Engineering: Software Engineering in Practice (ICSE-SEIP)*, 2023, pp. 246–257. DOI: 10.1109/ICSE-SEIP58684.2023.00028

12 L. Marchezan, W. K. G. Assuncao, R. Kretschmer, and A. Egyed, "Change-oriented repair propagation," in *Proceedings of the International Conference on Software and System Processes and International Conference on Global Software Engineering*, ser. ICSSP'22, Pittsburgh, PA, USA: Association for Computing Machinery, 2022, 82–92, ISBN: 9781450396745. DOI: 10.1145/3529320.3529330

13 L. Marchezan, W. K. G. Assunção, G. Michelon, E. Herac, and A. Egyed, "Code smell analysis in cloned java variants: The apo-games case study," in *Proceedings of the 26th ACM International Systems and Software Product Line Conference - Volume A*, ser. SPLC '22, Graz, Austria: Association for Computing Machinery, 2022, 250–254, ISBN: 9781450394437. DOI: 10.1145/3546932.3547015

14 L. Marchezan, W. Assunção, J. Carbonell, E. Rodrigues, M. Bernardino, and F. Basso, "SPLReePlan - Automated Support for Software Product Line Reengineering Planning," in *15th Brazilian Symposium on Software Components, Architectures, and Reuse*, ser. SBCARS '21, Joinville, Brazil, 2021, 1–10, ISBN: 9781450384193. DOI: 10.1145/3483899.3483902

15 L. Marchezan, J. a. Carbonell, E. Rodrigues, M. Bernardino, F. P. Basso, and W. K. G. Assunção, "Enhancing the Feature Retrieval Process with Scoping and Tool Support: PAxSPL_v2," in *Proceedings of the 24th ACM International Systems and Software Product Line Conference - Volume B*, ser. SPLC '20, Montreal, QC, Canada: Association for Computing Machinery, 2020, 29–36, ISBN: 9781450375702. DOI: 10.1145/3382026.3425767

16 L. Marchezan, G. Bolfe, E. Rodrigues, M. Bernardino, and F. P. Basso, "Thoth: A web-based tool to support systematic reviews," in *2019 ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM)*, 2019, pp. 1–6. DOI: 10.1109/ESEM.2019.8870160

17 L. Marchezan, E. Rodrigues, M. Bernardino, and F. P. Basso, "A customizable spl scoping process for spl reengineering," in *Anais da III Escola Regional de Engenharia de Software*, SBC, 2019, pp. 137–146.

18 J. Carbonell, L. Marchezan, A. Neto, E. Rodrigues, M. Bernardino, and Y. Lima, "Analyzing the impact of the search phase in a systematic mapping study," in *Anais da II Escola Regional de Engenharia de Software*, SBC, 2018, pp. 33–40.

19 J. a. P. S. da Silva, M. Ecar, M. S. Pimenta, G. T. A. Guedes, L. P. Franz, and L. Marchezan, "A systematic literature review of uml-based domain-specific modeling languages for self-adaptive systems," in *Proceedings of the 13th International Conference on Software Engineering for Adaptive and Self-Managing Systems*, ser. SEAMS '18, Gothenburg, Sweden: Association for Computing Machinery, 2018, 87–93, ISBN: 9781450357159. DOI: 10.1145/3194133.3194136

20 L. Marchezan, E. Rodrigues, M. Bernardino, M. Laser, and F. Lima, "Towards a generic process for spl re-engineering," in *Anais da I Escola Regional de Engenharia de Software*, SBC, 2017, pp. 1–8.

Books and Chapters

1 L. Marchezan, E. Rodrigues, J. Carbonell, M. Bernardino, F. P. Basso, and W. K. Assunção, "PAxSPL: A Framework for Aiding SPL Reengineering Planning," in *Handbook of Re-Engineering Software Intensive Systems into Software Product Lines*, Springer, 2022, pp. 319–353.

2 E. M. Rodrigues, A. F. Zorzo, and L. Marchezan, "PLeTs: A Software Product Line for Testing Tools," in *UML-Based Software Product Line Engineering with SMarty*, Springer, 2022, pp. 315–334.

Teaching

Johannes Kepler University

2025
- 343.301 Techniques of Presentation and Team Work (AI for Software Engineering) (3 credits)
- 343.350 Engineering of AI-intensive Systems (3 credits)
- 343.008 Model-driven Engineering (3 credits)
- 343.006 Seminar in Software Engineering (History and Evolution of Software Artifacts) (3 credits)

2024
- 343.006 Seminar in Software Engineering (AI Applied to Software Engineering) (3 credits)
- 343.001, 343.302, 343.004 Software Engineering (Exercises) (3 credits each)
- 343.301 Techniques of Presentation and Team Work (AI for Software Engineering) (3 credits)
- 343.350 Engineering of AI-intensive Systems (3 credits)
- 343.008 Model-driven Engineering (3 credits)
- 343.006 Seminar in Software Engineering (History and Evolution of Software Artifacts) (3 credits)

2023
- 343.006 Seminar in Software Engineering (AI-driven Software Systems) (3 credits)
- 343.001, 343.302 Software Engineering (Exercises) (3 credits each)
- 343.006 Seminar in Software Engineering (Software Modernization) (3 credits)

2022
- 343.309 Software Engineering (Exercises) (3 credits)
- 343.006 Seminar in Software Engineering (Software Modernization) (3 credits)

2021
- 343.309 Software Engineering (Exercises) (3 credits)
- 343.006 Seminar in Software Engineering (Recommendation Systems for Software Engineering) (3 credits)

Grants and Funding

2025 – 2029
- Austrian Science Fund (FWF) – Project Title: Co-Existence of Modeling Language Versions and their Bounded Co-Evolution (COEE). PI: Alexander Egyed (JKU, Austria). Co-PIs: **Luciano Marchezan**, Wesley K. G. Assunção (NCSU). Funding: EUR 449,882.55.

2025 – 2028
- Economic Affairs Department of the State of Upper Austria. Call: AI Region Upper Austria – Project Title: RefactorAI. PI: Ouijdane Guiza (Pro2Future GmbH). Co-PIs: Paul Grünbacher (JKU, Austria), Alexander Egyed (JKU, Austria). Collaborators: Wesley K. G. Assunção (NCSU), **Luciano Marchezan**, Cosmina Ratiu (JKU, Austria). Industry Partners: Dynatrace and ITPRO Consulting & Software GmbH. Funding: EUR 928,250.00

2026-2028
- **NSERC Canada Postdoctoral Research Award** – Project Title: AI-Driven Detection and Refactoring of Semantic Code Clones for Reliable Software – *under review*
- **IVADO Postdoctoral Research Funding Program** – Project Title: Learning-Based Approaches to Semantic Clone Detection and Refactoring for Software Reliability– *under review*

Miscellaneous Experience

Organization

2025 – · · ·
- Software Engineering at Montreal – Meeting at UdeM – Organizer

2024 – · · ·
- International workshop on collaborative and participatory modeling (MODELS co-located workshop) – Co-organizer

Reviews for Journals

2025 – · · ·
- Empirical Software Engineering

Miscellaneous Experience (continued)

- ACM Transactions on Software Engineering and Methodology
- Information and Software Technology

2024 – · · ·
- Software and Systems Modeling
- Automated Software Engineering

2023 – · · ·
- Journal of Systems and Software

2022 – · · ·
- Journal of Software: Evolution and Process

Reviews for Conferences and Workshops

2026 – · · ·
- International Conference on Software Engineering (ICSE) – ACM Student Research Competition

2025 – · · ·
- International Conference on Software Analysis, Evolution and Reengineering (SANER) – Research track
- International Systems and Software Product Line Conference (SPLC) – Main Track
- International Conference on Evaluation and Assessment in Software Engineering (EASE) – Short papers and Emerging Results Track
- International Conference on Model Driven Engineering Languages and Systems (MODELS) – Tools and Demonstrations Track
- International Conference on Software Testing, Verification and Validation (ICST) – Posters Track

2024 – · · ·
- First International Workshop on Model Management (MODELS co-located workshop)

2023 – · · ·
- Re:Volution (SPLC co-located workshop)

Awards and Achievements

2025
- **JKU Young Researchers' Award** for the thesis "Improving Consistency Maintenance for Collaborative Software Systems Engineering"

2024
- **Distinguished Paper Award**, SANER 2024. For the paper "Exploring dependencies among inconsistencies to enhance the consistency maintenance of models"

2022
- **SoSym-First Paper Award**, MODELS 2022. For the paper "Generating repairs for inconsistent models"
- **Best Paper Award**, ICSSP/ICGSE 2022. For the paper "Change-oriented repair propagation"

2021
- **Best Master Thesis**, Software Engineering Doctoral and Master Theses Competition - Brazil.

2019
- **Student with the most outstanding performance in the Software Engineering Masters Course**, Universidade Federal do Pampa.

2018
- **Student with the most outstanding performance in the Software Engineering Undergraduate Course**, Universidade Federal do Pampa.

2016
- **Student with the most outstanding performance in the Software Engineering Undergraduate Course**, Universidade Federal do Pampa.

2014
- **Dean's List Certificate**, Illinois Institute of Technology School of Applied Technology.

References

Prof. Eugene Syriani
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Montreal, QC, Canada.
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Prof. Alexander Egyed
Johannes Kepler University,
Linz, Austria.
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Prof. Wesley K. G. Assunção
North Carolina State University,
Raleigh, NC, USA.
wguezas@ncsu.edu