






# Francesco Vinci

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## EXPERIENCE

- **RWTH Aachen University**   
*Visiting Researcher* March 2025 - Current  
Aachen, Germany
  - Visiting Researcher at the Process and Data Science (PADS) Research Group.
- **University of Padova**   
*Teaching Assistant* April 2023 - Current  
Padova (PD), Italy
  - Database Teaching Assistant in Computer Science Bachelor's degree.
- **Fraunhofer FIT**   
*Visiting Researcher* September 2024 - March 2025  
Aachen, Germany
  - Visiting Researcher at the Process Mining Group in Aachen.
- **Danieli Automation**   
*R&D Data Science Intern* March 2022 - August 2022  
Buttrio (UD), Italy
  - Intern at the Danieli Research Center.
- **University of Padua**   
*Librarian* September 2019 - December 2019  
Padova (PD), Italy
  - Librarian at the "Giovanni Colombo" Statistical Sciences Library.
  - Assistant at the Central Interlibrary Loan (ILL) Office (UCPI).

## EDUCATION

- **University of Padova** October 2022 - Current  
Padova (PD), Italy  
*Ph.D. in Brain, Mind & Computer Science*
  - Curricula: Computer Science for Societal Challenges and Innovation
  - Project: *Data-driven Optimization of Processes in Public Administrations: When Human Perception meets Objectivity*
  - Supervisor: prof. Massimiliano de Leoni
- **University of Padova** October 2020 - September 2022  
Padova (PD), Italy  
*M.Sc. in Data Science*
  - Thesis: *Semi-supervised Deep Learning methods for Video Anomaly Detection applied to sticking identification during steelmaking continuous casting process*
  - Supervisor: prof. Michele Rossi
  - Co-Supervisor: Andrea Zamolo
- **University of Padova** October 2016 - February 2020  
Padova (PD), Italy  
*B.Sc. in Mathematics*
  - Thesis: *Enlargement of filtrations in discrete time and applications to finance*
  - Supervisor: prof. Claudio Fontana

## PUBLICATIONS

C=CONFERENCE, J=JOURNAL

- [J.1] **Francesco Vinci**, Massimiliano de Leoni (2025). **Balancing Fitness and Precision in Process Model Repair: Framework Formalization, Assessment, and Benefits for Simulation**. In *Process Science*, Vol. 2, n. 3, Best Process Science Conference Papers 2024 Collection. Springer Nature. DOI: 10.1007/s44311-025-00007-7
- [C.3] **Francesco Vinci**, Massimiliano de Leoni (2024). **Repairing Process Models Through Simulation and Explainable AI**. In *International Conference on Business Process Management*, pp. 129-145. Springer Nature Switzerland. September 1-6, 2024, Krakow, Poland. DOI: 10.1007/978-3-031-70396-6\_8

- [C.2] Alessandro Padella, Felix Mannhardt, **Francesco Vinci**, Massimiliano de Leoni, Irene Vanderfeesten (2024). **Experience-Based Resource Allocation for Remaining Time Optimization**. In *International Conference on Business Process Management*, pp. 345-362. Springer Nature Switzerland. September 1-6, 2024, Krakow, Poland. DOI: 10.1007/978-3-031-70396-6\_20
- [C.1] Massimiliano de Leoni, **Francesco Vinci**, Sander Leemans, Felix Mannhardt (2023). **Investigating the Influence of Data-Aware Process States on Activity Probabilities in Simulation Models: Does Accuracy Improve?**. In *International Conference on Business Process Management*, pp. 129-145. Springer Nature Switzerland. September 11-15, 2023, Utrecht, The Netherlands. DOI: 10.1007/978-3-031-41620-0\_8









## SKILLS

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- **Specialized Area:** Process Mining, Business Process Management, Business Process Simulations
- **Programming Languages:** Python, R, MATLAB, C, C++, Julia
- **Data Science & Machine Learning:** TensorFlow, PyTorch, Keras, scikit-learn, XGBoost, Scipy, Catboost, SHAP, River, Pm4Py
- **Database Systems:** PostgreSQL, PgAdmin
- **Mathematical & Statistical Tools:** MATLAB, R Studio
- **Other Tools & Technologies:** Git, ProM Tools, CPN Tools, Apromore, Cortado
- **Markup Languages:** HTML, CSS, LaTeX, Microsoft Office



## TRAINING AND DEVELOPMENT

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- **7th International Workshop on Process-Oriented Data Science for Healthcare (PODS4H24)** 14 October 2024  
Technical University of Denmark, Lyngby, Denmark  
◦ Speaker 
- **6th International Conference on Process Mining (ICPM 2024)** 14 October 2024  
Technical University of Denmark, Lyngby, Denmark  
◦ Attendee 
- **22nd International Conference on Business Process Management (BPM 2024)** 1-6 September 2024  
AGH University, Krakow, Poland  
◦ Attendee and Speaker 
- **12th European Big Data Management & Analytics Summer School (eBISS 2024)** 1-5 July 2023  
University of Padova, Padova, Italy  
◦ Organizer 
- **21st International Conference on Business Process Management (BPM 2023)** 11-15 September 2023  
Utrecht University, Utrecht, The Netherlands  
◦ Attendee and Speaker 
- **11th European Big Data Management & Analytics Summer School (eBISS 2023)** 3-7 July 2023  
Universitat Politècnica de Catalunya, Barcelona, Spain  
◦ Attendee 
- **Youth in Action for SDGs** 6 May 2022  
Fondazione Italiana Accenture, Milan, Italy  
◦ Attendee 
- **Web Summit 2021** 1-4 November 2021  
Lisbon, Portugal  
◦ Attendee 

## HACKATHONS

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- **World Data League** July 2021  
World Data League  
◦ Finalist 
- **Youth in Action** April 2021  
Fondazione Italiana Accenture  
◦ Premio Promotori Winner 

## ADDITIONAL INFORMATION

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**Languages:** Italian (C2), English (C1), German (A1)