Francesco Vinci

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 francesco-vinci | franvinci

EXPERIENCE

• **University of Padova [⊕]** *April 2023 - Current*
Teaching Assistant Padova (PD), Italy
  ◦ Database Teaching Assistant in Computer Science Bachelor's degree.

• **RWTH Aachen University [⊕]** *March 2025 - September 2025*
Visiting Researcher Aachen, Germany
  ◦ Visiting Researcher at the Process and Data Science (PADS) Research Group.
  ◦ Supervised by Prof. Wil van der Aalst.

• **Fraunhofer FIT [⊕]** *September 2024 - March 2025*
Visiting Researcher Aachen, Germany
  ◦ Visiting Researcher at the Process Mining Group in Aachen.
  ◦ Supervised by Prof. Wil van der Aalst and Dr. Gyunam Park.

• **Danieli Automation [⊕]** *March 2022 - August 2022*
R&D Data Science Intern Buttrio (UD), Italy
  ◦ Intern at the Danieli Research Center.

• **University of Padua [⊕]** *September 2019 - December 2019*
Librarian 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*
Ph.D. in Brain, Mind & Computer Science Padova (PD), Italy
  ◦ 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*
M.Sc. in Data Science Padova (PD), Italy
  ◦ 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*
B.Sc. in Mathematics Padova (PD), Italy
  ◦ Thesis: *Enlargement of filtrations in discrete time and applications to finance*
  ◦ Supervisor: prof. Claudio Fontana

PUBLICATIONS C=CONFERENCE, J=JOURNAL, *=UNDER REVIEW

[C.5] Ngoc-Diem Le, Alessandro Padella, **Francesco Vinci**, Massimiliano de Leoni (2025). **Leveraging Counterfactuals for Prescriptive Process Analytics**. In *Process Technology Forum, International Conference on Business Process Management*. **Accepted**.

[C.4] **Francesco Vinci**, Gyunam Park, Wil van der Aalst, Massimiliano de Leoni (2025). **Online Discovery of Simulation Models for Evolving Business Processes**. In *International Conference on Business Process Management*. **Accepted**.

[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

- **Specialized Area:** Process Mining, Business Process Management, Business Process Simulations, Artificial Intelligence, Machine and Deep Learning
- **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

- **7th International Workshop on Process-Oriented Data Science for Healthcare (PODS4H24)** *14 October 2024*
  Technical University of Denmark, Lyngby, Denmark [🌐]
  ◦ Attendee and 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 Novemeber 2021*
  Lisbon, Portugal [🌐]
  ◦ Attendee

HACKATHONS

- **World Data League** *July 2021*
  World Data League [🌐]
  ◦ Finalist

- **Youth in Action** *April 2021*
  Fondazione Italiana Accenture [🌐]
  ◦ *Premio Promotori* Winner

ADDITIONAL INFORMATION

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