

# Francesco Vinci

+39-388-344-6145 | [fvinci@math.unipd.it](mailto:fvinci@math.unipd.it) | [franvinci.github.io](https://franvinci.github.io)

 [francesco-vinci](#) |  [franvinci](#) |  [Francesco Vinci](#)

## EXPERIENCE

- **University of Padova** []  
*Teaching Assistant*
  - Database Teaching Assistant in Computer Science Bachelor's degree.
- **RWTH Aachen University** []  
*Visiting Researcher*
  - Visiting Researcher at the Process and Data Science (PADS) Research Group.
  - Supervised by Prof. Wil van der Aalst.
- **Fraunhofer FIT** []  
*Visiting Researcher*
  - Visiting Researcher at the Process Mining Group in Aachen.
  - Supervised by Prof. Wil van der Aalst and Dr. Gyunam Park.
- **Danieli Automation** []  
*R&D Data Science Intern*
  - Intern at the Danieli Research Center.
- **University of Padua** []  
*Librarian*
  - Librarian at the "Giovanni Colombo" Statistical Sciences Library.
  - Assistant at the Central Interlibrary Loan (ILL) Office (UCPI).

## EDUCATION

- **University of Padova**  
*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**  
*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**  
*B.Sc. in Mathematics*
  - Thesis: *Enlargement of filtrations in discrete time and applications to finance*
  - Supervisor: Prof. Claudio Fontana

## PUBLICATIONS

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

- [C.6] Francesco Vinci, Gyunam Park, Wil van der Aalst, Massimiliano de Leoni (2025). **Reliable and Configurable Process Simulations via Probabilistic White-Box Models**. In *International Conference on Service Oriented Computing*. Accepted.
- [C.5] Ngoc-Diem Le, Alessandro Padella, **Francesco Vinci**, Massimiliano de Leoni (2025). **Leveraging Counterfactuals for Prescriptive Process Analytics**. In *Business Process Management: Responsible BPM Forum, Process Technology Forum, Educators Forum. BPM 2025*. Springer Nature Switzerland. DOI: 10.1007/978-3-032-02936-2\_15.

- [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*, pp. 451-468. Springer Nature Switzerland. August 31- September 5, 2025, Seville, Spain. DOI: 10.1007/978-3-032-02867-9\_27
- [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, Event Data, 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
- **Web Development:** Flask, JavaScript, HTML, CSS
- **Other Tools & Technologies:** Git, ProM Tools, CPN Tools, Apromore, Cortado

## TRAINING AND DEVELOPMENT

- |   |                                     |   |
|---|-------------------------------------|---|
| • <b>23rd International Conference on Business Process Management (BPM 2025)</b><br><i>Universidad de Sevilla, Seville, Spain</i>                         | <i>August 31 – September 5 2025</i> |  |
| ◦ Attendee and Speaker  |                                     |   |
| • <b>7th International Workshop on Process-Oriented Data Science for Healthcare (PODS4H24)</b><br><i>Technical University of Denmark, Lyngby, Denmark</i> | <i>14 October 2024</i>              |  |
| ◦ Attendee and Speaker  |                                     |   |
| • <b>6th International Conference on Process Mining (ICPM 2024)</b><br><i>Technical University of Denmark, Lyngby, Denmark</i>                            | <i>14 October 2024</i>              |  |
| ◦ Attendee  |                                     |   |
| • <b>22nd International Conference on Business Process Management (BPM 2024)</b><br><i>AGH University, Krakow, Poland</i>                                 | <i>1-6 September 2024</i>           |  |
| ◦ Attendee and Speaker  |                                     |   |
| • <b>12th European Big Data Management &amp; Analytics Summer School (eBISS 2024)</b><br><i>University of Padova, Padova, Italy</i>                       | <i>1-5 July 2023</i>                |  |
| ◦ Organizer   |                                     |   |
| • <b>21st International Conference on Business Process Management (BPM 2023)</b><br><i>Utrecht University, Utrecht, The Netherlands</i>                   | <i>11-15 September 2023</i>         |  |
| ◦ Attendee and Speaker  |                                     |   |
| • <b>11th European Big Data Management &amp; Analytics Summer School (eBISS 2023)</b><br><i>Universitat Politècnica de Catalunya, Barcelona, Spain</i>    | <i>3-7 July 2023</i>                |  |
| ◦ Attendee  |                                     |   |
| • <b>Youth in Action for SDGs</b><br><i>Fondazione Italiana Accenture, Milan, Italy</i>   | <i>6 May 2022</i>                   |  |
| ◦ Attendee  |                                     |   |
| • <b>Web Summit 2021</b><br><i>Lisbon, Portugal</i>   | <i>1-4 November 2021</i>            |  |
| ◦ Attendee  |                                     |   |

## HACKATHONS

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- **World Data League**

*World Data League*

- Finalist

*July 2021*



- **Youth in Action**

*Fondazione Italiana Accenture*

- *Premio Promotori* Winner

*April 2021*



## ADDITIONAL INFORMATION

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