

Nicolò Di Domenico

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Education

PhD in Computer Science and Engineering

november 2024 - today

University of Bologna - Cesena

Research topic: Artificial Intelligence for Security, Privacy, and Quality in Face Recognition Systems

Master's Degree in Computer Science and Engineering

september 2020 - march 2023

University of Bologna - Cesena

Final mark: 110/110 cum laude

Thesis title: Revelio: a Modular and Effective Framework for Reproducible Training and Evaluation of Morphing Attack Detectors

Area of study: Computer Vision and Deep Learning

Bachelor's Degree in Computer Science and Engineering

september 2017 - october 2020

University of Bologna - Cesena

Final mark: 110/110 cum laude

Thesis title: Progettazione e Realizzazione di un Plugin Efficiente per la Resa e l'Animazione su Larga Scala in Unity

Area of study: Computer Graphics

High school diploma in scientific studies

september 2012 - june 2017

Liceo Scientifico A. Serpieri - Rimini

Final mark: 100/100 cum laude

Working Experience

University of Bologna - Cesena

september 2023 - today

Teaching Tutor

University of Bologna - Cesena

april 2023 - october 2024

Research Fellow at Biometric Systems Laboratory

Liceo Scientifico A. Serpieri - Rimini

january 2022 - february 2022

Substitute Computer Science Teacher

Università Ca' Foscari Venezia - Venezia

april 2021 - july 2021

Development of the [Ca' Foscari Jisho Web](#) Website

Skills

Programming Languages: [Python 3](#) [Scala 3](#) [Scala 2](#) [Java](#) [C#](#) [JavaScript](#) [SQL](#) [C](#) [C++](#)

[Rust](#) [Bash](#) [PHP](#) [CSS](#) [HTML](#) [LaTeX](#)

Libraries and Frameworks: [PyTorch](#) [TensorFlow](#) [Scikit-Learn](#) [OpenCV](#) [Django](#) [Vue](#) [Unity](#)

Languages: [Italian - native speaker](#) [English - C1](#)

Publications

- Arc2Morph: Identity-Preserving Facial Morphing with Arc2Face** 2026
Di Domenico, Franco, Ferrara, Maltoni. In IEEE International Conference on Automatic Face and Gesture Recognition (FG).
- Towards Fully Automated ISO/ICAO Face Compliance Verification via Prompt Learning** 2026
Di Domenico, Borghi, Franco, Maltoni. In IEEE Transactions on Biometrics, Behavior, and Identity Science (T-BIOM).
- Towards Zero-Shot ISO/ICAO Face Compliance Verification via CLIP-IQA and Natural Language Prompting** 2025
Di Domenico, Borghi, Franco, Maltoni. In IEEE International Joint Conference on Biometrics (IJCB).
- BioGaze: a Framework for Evaluating the Photographic Requirements of the ISO/IEC 39794-5 Standard** 2025
Elatfi, Di Domenico, Borghi, Franco, Maltoni. In IEEE International Conference on Automatic Face and Gesture Recognition (FG).
- AMONOT: Synthetic Aging for Differential Morphing Attack Detection Systems** 2024
Spathis, Di Domenico, Borghi, Franco, Maltoni. In Pattern Recognition. ICPR 2024 International Workshops and Challenges.
- MONOT: High-Quality Privacy-compliant Morphed Synthetic Images for Everyone** 2024
Borghi, Di Domenico, Ferrara, Franco, Latif, Maltoni. In IEEE International Workshop on Information Forensics and Security (WIFS).
- San Vitale Challenge: Automatic Reconstruction of Ancient Colored Glass Windows** 2024
Di Domenico, Borghi, Franco, Boschetti, Giacomini, Barzaghi, Ferucci, Zambruno, Mularoni, Gao, Che, Li, Zu, Hao, Zhang, Dúcz, Gegő, Imeri, Nemkin, Rakhmatillaev, Szatmári, Rowan. In European Conference on Computer Vision (ECCV).
- TONO: a Synthetic Dataset for Face Image Compliance to ISO/ICAO Standard** 2024
Borghi, Franco, Di Domenico, Maltoni. In European Conference on Computer Vision (ECCV).
- Improving Accomplice Detection in the Morphing Attack** 2024
Di Domenico, Borghi, Franco, Maltoni. In Machine Intelligence Research.
- Towards Federated Learning for Morphing Attack Detection** 2024
Robledo-Moreno, Borghi, Di Domenico, Franco, Raja, Maltoni. In IEEE International Joint Conference on Biometrics (IJCB).
- V-MAD: Video-based Morphing Attack Detection in Operational Scenarios** 2024
Borghi, Franco, Di Domenico, Ferrara, Maltoni. In IEEE International Joint Conference on Biometrics (IJCB).
- ONOT: a High-Quality ICAO-compliant Synthetic Mugshot Dataset** 2024
Di Domenico, Borghi, Franco, Maltoni. In IEEE International Conference on Automatic Face and Gesture Recognition (FG).

SDFR: Synthetic Data for Face Recognition Competition 2024

Shahreza, Ecabert, George, Unnervik, Marcel, **Di Domenico**, Borghi, Maltoni, Boutros, Vogel, Damer, Sánchez-Pérez, Calvo-Zaragoza, Biesseck, Vidal, Granada, Menotti, DeAndres-Tame, La Cava, Concas, Melzi, Tolosana, Vera-Rodriguez, Perelli, Orrù, Marcialis, Fierrez. In *IEEE International Conference on Automatic Face and Gesture Recognition (FG)*.

Face Restoration for Morphed Images Retouching 2024

Di Domenico, Borghi, Franco, Maltoni. In *International Workshop on Biometrics and Forensics (IWBF)*.

FRCSyn-onGoing: Benchmarking and comprehensive evaluation of real and synthetic data to improve face recognition systems 2024

Melzi, Tolosana, Vera-Rodriguez, Kim, Rathgeb, Liu, DeAndres-Tame, Morales, Fierrez, Ortega-Garcia, Zhao, Zhu, Yan, Zhang, Wu, Lei, Tripathi, Kothari, Zama, Deb, Biesseck, Vidal, Granada, Fickel, Führ, Menotti, Unnervik, George, Ecabert, Shahreza, Rahimi Noshanagh, Marcel, Sarridis, Koutlis, Baltso, Papadopoulos, Diou, **Di Domenico**, Borghi, Pellegrini, Mas-Candela, Sánchez-Pérez, Atzori, Boutros, Damer, Fenu, Marras. In *Information Fusion*.

FRCSyn Challenge at WACV 2024: Face Recognition Challenge in the Era of Synthetic Data 2024

Melzi, Tolosana, Vera-Rodriguez, Kim, Rathgeb, Liu, DeAndres-Tame, Morales, Fierrez, Ortega-Garcia, Zhao, Zhu, Yan, Zhang, Wu, Lei, Tripathi, Kothari, Zama, Deb, Biesseck, Vidal, Granada, Fickel, Führ, Menotti, Unnervik, George, Ecabert, Shahreza, Rahimi Noshanagh, Marcel, Sarridis, Koutlis, Baltso, Papadopoulos, Diou, **Di Domenico**, Borghi, Pellegrini, Mas-Candela, Sánchez-Pérez, Atzori, Boutros, Damer, Fenu, Marras. In *IEEE/CVF Winter Conference on Applications of Computer Vision Workshops (WACVW)*.

Combining identity features and artifact analysis for Differential Morphing Attack Detection 2023

Di Domenico, Borghi, Franco, Maltoni. In *International Conference on Image Analysis and Processing (ICIAP)*.

Revelio: a Modular and Effective Framework for Reproducible Training and Evaluation of Morphing Attack Detectors 2023

Borghi*, **Di Domenico***, Franco, Ferrara, Maltoni. In *IEEE Access*.

*equal contribution

A Framework to Improve the Comparability and Reproducibility of Morphing Attack Detectors 2023

Di Domenico, Borghi, Franco, Ferrara, Maltoni. In *IEEE International Conference on Metrology for Extended Reality, Artificial Intelligence and Neural Engineering (MetroXRINE)*.

Tutorials

Face Recognition and Verification: Recent Trends and Threats 2023

Borghi, **Di Domenico**, Pellegrini. In *IEEE International Joint Conference on Biometrics (IJCB)*.