

HENRIQUE PIÑEIRO MONTEAGUDO

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Firenze, Italy | Santiago de Compostela, Spain

Data Scientist and PhD in CSE with 3+ years of industry experience. Specialized in 3D perception and real-time ML pipelines. **Inventor on 5 US Patent applications.**

EXPERIENCE

- **Verizon Connect** September 2022 - Present
Data Scientist Firenze, Italy
 - Researching, developing, maintaining and deploying machine learning pipelines for video and sensor data that run on hundred of thousands of events daily.
- **École Polytechnique Fédérale de Lausanne (EPFL)** May 2022 - August 2022
Research Assistant Lausanne, Switzerland
 - Built a background extraction and super resolution pipeline to insert remote participants in TV programs as part of the [AdMiRe](#) EU project. Worked in the Multimedia Signal Processing laboratory under prof. Touradj Ebrahimi.
- **Universidade de Vigo** September 2021 - February 2022
Research Assistant Vigo, Spain
 - Multiple Object Tracking on edge platforms (NVidia Jetson) for the [InfraROB](#) EU research project. Worked in the Applied Geotechnologies research group while doing my Master's Thesis.

EDUCATION

- **Università di Bologna** November 2022 - March 2026
PhD in Computer Science and Engineering Bologna, Italy
 - Carried out research in 3D Computer Vision, label-efficient bird's eye view perception. Funded by the Marie Skłodowska-Curie Actions project [SMARTHEP](#) for real-time data analysis in science and industry. Supervised by Samuele Salti, Leonardo Taccari and Francesco Sambo.
- **Universities of Vigo, Santiago, A Coruña and Porto** September 2020 - February 2022
MSc in Computer Vision Spain and Portugal
 - One year and a half program with courses on both fundamental and advanced computer vision topics. Average grade: 9.6/10.
- **Universidade de Vigo** September 2016 - September 2020
BSc in Automation Engineering and Industrial Electronics Vigo, Spain
 - Specialization in Automation Engineering.

SELECTED PUBLICATIONS

J=JOURNAL, C=CONFERENCE, P=PATENT

- [J.2] **Henrique Piñeiro Monteagudo**, Leonardo Taccari, Aurel Pjetri, Francesco Sambo, Samuele Salti. [RendBEV: Semantic Perspective View Rendering as Supervision for Bird's Eye View Segmentation](#). In *IEEE Access*, 2026.
- [J.1] S. Åstrand et al. [Perspective on machine learning for real-time analysis at the large Hadron Collider experiments](#). In *Machine Learning: Science and Technology*, 2026.
- [P.2] Four additional US Patent applications on machine learning and computer vision. *Pending*, 2024-2026.
- [P.1] Niccolò Bellaccini, Matteo Simoncini, Andrea Benericetti, **Henrique Piñeiro Monteagudo**, Francesco Sambo. *Systems and methods for maneuver identification from condensed representations of video*. US Patent 12573211, 2026.
- [C.4] Tomaso Trinci, **H. Piñeiro Monteagudo**, L. Taccari. [Enhancing MLLMs for Safety-Critical Driving Video Analysis](#). In *arXiv:2605.22185*, 2026. (To appear at ITSC 2026).
- [C.3] **Henrique Piñeiro Monteagudo**, Leonardo Taccari, Aurel Pjetri, Francesco Sambo, Samuele Salti. [RendBEV: Semantic Novel View Synthesis for Self-Supervised Bird's Eye View Segmentation](#). [Oral] In WACV 2025.
- [C.2] Aurel Pjetri et al. [ViewpointDepth: A New Dataset for Monocular Depth Estimation Under Viewpoint Shifts](#). In *IV* 2025.
- [C.1] Andrea Benericetti et al. [An object detection approach for lane change and overtake detection from motion profiles](#). In *ITSC* 2023.

TECHNICAL SKILLS

- **Programming & Frameworks:** Python, PyTorch, OpenCV.
- **Cloud & Tools:** AWS (SageMaker, S3), Git, Linux, Docker.
- **Expertise:** Video Analysis, 3D Computer Vision, Bird's Eye View (BEV) Perception.