Théo Morales, Ph.D.

tmorales@tcd.ie @DubiousCactus Théo Morales
http://theomorales.com/

Employment History

2024 – 2026	**Research Fellow.** School of Computer Science & Statistics, Trinity College Dublin, Ireland.
2023	**Short-term lecturer.** Fuzhou University & Maynooth University, China.
2020 – . . .	**Programming Tutor.** online and in Dublin, Ireland.
2019 – 2020	**Computer Vision engineer (R&D).** Dopi / Cisteme / XLIM, France.
2019	**Research assistant.** Artificial Intelligence in Robotics group, Aarhus University, Denmark.
2017 – 2019	**Part-time software developer.** Trifork, Aarhus, Denmark.
2016 – 2017	**Part-time software developer.** Asimut Software, Aarhus, Denmark.

Education

2020 – 2024	**Ph.D. Computer Science, Trinity College Dublin**. Thesis title: *Designing Hand-Object Interaction Representations for Better Grasp Priors*.
2017 – 2019	**M.Sc. Computer Engineering, Aarhus University**. Thesis title: *Synthetic Images for Convolutional Neural Networks in Autonomous Drone Racing*.
2016 – 2017	**B.Eng. Information and Communication Technology, VIA University College**. Thesis title: *Pizza Ordering Management System*.
2013 – 2016	**DUT. Information and Communication Technology, IUT La Rochelle / VIA University College**. Undergraduate IT diploma in Embedded Systems & Signal Processing.

Research Publications

Conference Proceedings

1. T. Morales, O. Taheri, and G. Lacey, "A versatile and differentiable hand-object interaction representation," in *2025 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2025, pp. 23–33. DOI: 10.1109/WACV61041.2025.00013.
2. S. Ravi, P. Climent-Perez, T. Morales, C. Huesca-Spairani, K. Hashemifard, and F. Florez-Revuelta, " ODIN: An OmniDirectional INdoor dataset capturing Activities of Daily Living from multiple synchronized modalities," in *2023 IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW)*, Los Alamitos, CA, USA: IEEE Computer Society, Jun. 2023, pp. 6488–6497. DOI: 10.1109/CVPRW59228.2023.00690.
3. T. Morales and G. Lacey, "A new benchmark for group distribution shifts in hand grasp regression for object manipulation. can meta-learning raise the bar?" In *NeurIPS 2022 Workshop on Distribution Shifts: Connecting Methods and Applications*, 2022. URL: https://openreview.net/forum?id=IKbA3QS7c8X.
4. T. Morales, A. Sarabakha, and E. Kayacan, "Image generation for efficient neural network training in autonomous drone racing," in *2020 International Joint Conference on Neural Networks (IJCNN)*, 2020, pp. 1–8. DOI: 10.1109/IJCNN48605.2020.9206943.

Skills

Competencies	Computer Vision (stereo vision, SfM, etc.), Computer Graphics (path tracing, OpenGL, etc.), 4D reconstruction, 3D Gaussian Splatting, NeRF, Mitsuba3, Diffusion Models, Transformers, …
Languages	Native in French, Fluent in English, near working proficiency in Spanish.
Programming	C, C++, Python, Java, Zig, CUDA, Bash, …
Web Dev	HTML, CSS, JavaScript, Apache Web Server, PHP.
Misc.	Academic research, teaching, training, consultation, LaTeX typesetting and publishing.

Miscellaneous Experience

Achievements

2025 **Awarded funding**, Research funding for a project with Dolby.

Conference Reviewing

2024 – . . . **Reviewer**. CVPR, NeurIPS.

References

Available on request.