

Théo Morales, Ph.D. in Computer Science

✉ tmorales@tcd.ie

🐙 @DubiousCactus

🌐 Théo Morales

🌐 <http://themorales.com/>



Employment History

- 2024 – 2026 **Research Fellow.** School of Computer Science & Statistics, Trinity College Dublin, Ireland.
Research: 4D reconstruction; dynamic Gaussian Splatting; 4D representations
- 2023 **Short-term lecturer.** Fuzhou University & Maynooth University, China.
- 2020 – . . . **Programming Tutor.** online and in Dublin, Ireland.
- 2019 – 2020 **Computer Vision engineer (R&D).** Dopli / Cysteme / XLIM, France.
Topics: edge AI; object tracking; model training & deployment
- 2019 **Research assistant.** Artificial Intelligence in Robotics group, Aarhus University, Denmark.
Topics: ROS; Gazebo; sim2real; UAV robotics
- 2017 – 2019 **Part-time software developer.** Trifork, Aarhus, Denmark.
Topics: web development; iOS development
- 2016 – 2017 **Part-time software developer.** Asimut Software, Aarhus, Denmark.
Topics: full-stack development

Education

- 2020 – 2024 **Ph.D. Computer Science, Trinity College Dublin.**
Thesis title: *Designing Hand-Object Interaction Representations for Better Grasp Priors.*
Topics: meta-learning; generative models; diffusion models; 3D representations
- 2017 – 2019 **M.Sc. Computer Engineering, Aarhus University.**
Thesis title: *Synthetic Images for Convolutional Neural Networks in Autonomous Drone Racing.*
Topics: CNNs; ROS; sim2real; OpenGL; robotics
- 2016 – 2017 **B.Eng. Information and Communication Technology, VIA University College.**
Thesis title: *Pizza Ordering Management System.*
Topics: TDD; REST API
- 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](https://doi.org/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](https://doi.org/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](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](https://doi.org/10.1109/IJCNN48605.2020.9206943).

Skills

Expertise	📖	Mathematics for ML, Computer Vision, Computer Graphics, 4D reconstruction, 3D Gaussian Splatting, Diffusion Models, Transformers, ...
MLOps	📖	Kubeflow, Docker, Kubernetes
Languages	📖	Native in French, Fluent in English, near working proficiency in Spanish.
Programming	📖	C, C++, Python, Java, Zig, CUDA, Bash, ...
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.