Robin Magnet

PhD Candidate at École Polytechnique

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2021–2024 École Polytechnique, Palaiseau, France, PhD.

Analysis of variability in shape collections, supervised by Maks Ovsjanikov at LIX laboratory.

2019–2020 ENS Paris-Saclay, France.

Master's degree MVA - Mathematics, Vision, Learning

2016–2020 **Ecole Centrale Paris**, France.

Graduate Engineering School. Major in Applied Mathematics

2017–2018 University of Paris-Sud (Paris 11), France.

First year of Master's degree in Fundamental Mathematics (Algebra, Differential Geometry, Probability and Statistics)

Work Experience

2024-Now Inria Paris, Paris, France, Postdoc.

Part of the HeKA team, working on detecting and reducing bone fracture on 3D images.

Meta, 4 month, Pittsburgh, USA, Research internship.

Part of Meta Reality Labs, working on learning compact deformation models.

2020 **LIX**, 6 month, Palaiseau, France, Research internship.

Part of Maks Ovsjanikov's shape analysis group working 3D shape correspondences using deformations

2019 Inria Grenoble, 6 month, Grenoble, France, Research work.

Part of Edmond Boyer's Morpheo team working on deep learning for unsupervised 3D faces scans

registration and generation

2018 **IDEMIA**, 6 month, Bochum, Germany, Research intern.

Part of Idemia's R&D team working on facial recognition and face matching for airport security

Skills

Computer Skills

Programming Python [scikit-learn, Tensorflow, PyTorch] (advanced level)

LATEX, C++, SQL, R, Julia, MATLAB (intermediate level)

Software Microsoft Office, Adobe Photoshop Lightroom

Languages

French Mother tongue

English Read, written, spoken – C1 level

German Read, written, spoken - B2 level

Interests

Music, sports, photography

Publications

2024 Robin Magnet, Maks Ovsjanikov. Memory-Scalable and Simplified Functional Map Learning, in *Proceedings of the IEEE/CVF Computer Vision and Pattern Recognition Conference* (2024)

- 2023 Robin Magnet, Maks Ovsjanikov. Scalable and Efficient Functional Map Computations on Dense Meshes, in *Computer Graphics Forum* (2023)
- 2023 Robin Magnet, Kevin Bloch, Maxime Taverne, Simone Melzi, Maya Geoffroy, Roman H Khonsari, Maks Ovsjanikov. Assessing craniofacial growth and form without landmarks: A new automatic approach based on spectral methods, in *Journal of Morphology* (2023)
- 2022 Robin Magnet, Jing Ren, Olga Sorkine-Hornung, Maks Ovsjanikov. Smooth Non-Rigid Shape Matching via Effective Dirichlet Energy Optimization, in *International Conference on 3D Vision (3DV)* (2022), **Best paper award**
- 2021 Robin Magnet, Maks Ovsjanikov. DWKS: A Local Descriptor of Deformations Between Meshes and Point Clouds, in *Proceedings of the IEEE/CVF International Conference on Computer Vision* (2021)