




Emile BARBIER--RENARD

Phd student in deep learning, 3D and image processing and radar imaging

CONTACTS

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CERTIFICATIONS

Fraunhofer FHR

International Summer School on Radar/SAR

nVidia

Fundamentals of Accelerated Computing with CUDA Python

LANGUAGES

French • Native

English • C1

Spanish • A2

Italian • A2

HOBBIES

Dance

Rock n' Roll, Lindy Hop, Jazz Roots, anything that swings!

Cello

Training in Reims Conservatory (2006-2016) then independant practice

EXPERIENCES

2022-2025

Télécom Paris • PhD student • 3 years, ongoing
Multiview 3-D reconstruction from non-coherent SAR images using inverse rendering (NeRF) [Python, Pytorch, Cuda]
• "Multiview 3-D Surface Reconstruction From SAR Images by Inverse Rendering," IEEE Geosci. Remote Sens. Lett. 2025, DOI: 10.1109/LGRS.2025.3572303
• PhD students representative in laboratory and school councils.
• Teaching assistant

2022

Laboratoire Hubert Curien • Intern • 6 months
Segmentation of copy detection patterns with morphological neural networks [Python, Tensorflow]
• "Logarithmic Morphological Neural Nets robust to lighting variations," co-author, DGMM 2022, DOI: 10.1007/978-3-031-19897-7_36

2021

Technodigit • Intern • 2 months
Prototyping surface rendering (splatting) for large point clouds [C++, GLSL]

FORMATIONS

2022-2025

PhD • Ecole Doctorale de l'Institut Polytechnique de Paris

2021-2022

Master's degree • Université Jean-Monnet

"Advanced Imaging & Material Appearance" • Highest honour [Matlab]

2019-2022

Engineering degree • Télécom Saint-Etienne

Imaging and Computer Science [Python, Matlab, C++ , Javascript, Java]
• "WIKIPEDIA — Category X, Degree Y," art piece for Biennale Internationale du Design de Saint-Etienne 2021 (delayed until 2022) [Python, JavaScript, NodeJS]

PERSONAL PROJECT:  **MetroLag**

metrolag.barbierrenard.fr

Real life competitive "capture the flags" game using public transports, assisted by a custom website and server [NodeJS, JavaScript]