



Emile BARBIER--RENARD,

PhD in signal and image processing

Looking for a postdoctoral position
in SAR 3D reconstruction

EXPERIENCES

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

2022-2025

2022

2021

Télécom Paris • PhD student • 3 years, ongoing
Multi-view 3D reconstruction in SAR imaging using inverse
rendering [Python, Pytorch, Cuda]

- "Reconstruction 3D depuis des couples SAR ascendant/descendant,"
30e Colloque sur le traitement du signal et des images, 2025
- "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

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

Technodigit • Intern • 2 months

Prototyping surface rendering (splatting) for large point clouds
[C++, GLSL]

FORMATIONS

2022-2025

2021-2022

2019-2022

PhD • Ecole Doctorale de l'Institut Polytechnique de Paris

Master's degree • Université Jean-Monnet

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

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]