

Arnaud Bletterer

Research Scientist, Research Team Leader

Computer Graphics, Image/Geometry processing, Machine learning

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I am a **curious** research scientist and leader with a **12-year track record** of **bridging the gap between exploration and industrialization**. I possess a particular proficiency at **identifying and implementing practical, production-ready solutions** to complex real-world challenges, with an **Occam's razor perspective** as often as possible.

My core philosophy is that **research and development** must remain directly aligned with **final software deliverables**, ensuring a **seamless and rapid transition** from innovation to commercial implementation.

> *Bernard of Chartres used to compare us to dwarfs perched on the shoulders of giants. He pointed out that we see more and farther than our predecessors, not because we have keener vision or greater height, but because we are lifted up and borne aloft on their gigantic stature.*
>
> — Bernard of Chartres (recorded by John of Salisbury in *Metalogicon*, 1159)

Employment

Expert Research Engineer at Quartier Latin — Since July 2026

- **Leading core technical research** and algorithm design for advanced computer vision and geometry processing systems.
- **Architecting high-performance pipelines** to deploy research prototypes into production-ready software modules.

Research Team Leader & **Research Engineer** at Quartier Latin *(Since Jan 2026, spin-off)* & QuantifiCare *(Mar 2023 - Dec 2025)* — March 2023 - June 2026

- **Led and mentored** up to 7 researchers, aligning activities with production deliverables.
- **Professionalized workflows** by introducing automated validation pipelines for image processing and AI.
- **Supervised clinical research**, co-authoring publications on acne grading (2024) and vitiligo assessment (2025).

Research Engineer at QuantifiCare — December 2018 - March 2023

- **Validated and industrialized** a 3D reconstruction algorithm robust to camera decalibration for daily clinical use.
- **Developed a fully autonomous face-stitching method** that tolerated acquisition errors, reducing user constraints and securing consistent model delivery.
- **Exchanged regularly with development teams** to integrate innovative methods and ensure seamless coherence with final software deliverables.

Ph.D Student at I3S Laboratory / Cintoo — October 2014 - December 2018

- **Researched and developed** novel algorithms for the compression and out-of-core resampling of massive terrestrial LiDAR point clouds.
- Author of the thesis: ***A graph-based approach for modeling and processing gigantic point clouds from terrestrial LiDAR acquisitions***.

Education

Ph.D in Automatic, Signal and Image Processing, Université Côte d'Azur — 2018

Master in Computer Science, Université de Strasbourg — 2014

Bachelor in Computer Science, Université de Strasbourg — 2012

Skills

Computer science

Computer Vision	OpenCV
3D & Geometry	MeshLab, IGL
Machine Learning	PyTorch, scikit-learn
Rendering	OpenGL, WebGL
Languages	Python, C++
Dev & Ops	Git, GitLab, Docker, VS Code, Linux

Languages

- French : native speaker
- English : professional use
- German : school level
- Russian : beginner

Miscellaneous

I love spending my free time:

- doing photography (you can find some of my work here and there)
- doing recreative programming
- generating beautiful renderings with Blender
- playing bass guitar

Publications

I mostly published prior to joining the industry, in the fields of **point cloud processing** and **3D reconstruction from LiDAR acquisitions** of cultural heritage sites. More recently, my research interests have also expanded towards **image processing** and **machine learning** of medical images.

2025

Objective Assessment of Target Vitiligo Areas by Semiautomatic Analysis of Standardized UV Images

Charles Jabour, Arnaud Bletterer, Thierry Passeron

JAMA dermatology

2024

Automatic Acne Severity Grading with a Small and Imbalanced Data Set of Low-Resolution Images

Rémi Bernhard, Arnaud Bletterer, Maëlle Le Caro, Estrella García Álvarez, Belchin Kostov, and Diego Herrera Egea

Dermatology and Therapy

2022

Graph-based Computation of Voronoi Diagrams on Large-scale Point-based Surfaces

Arnaud Bletterer, Frédéric Payan, and Marc Antonini

Eurographics

2020

A local graph-based structure for processing gigantic aggregated 3D point clouds

Arnaud Bletterer, Frédéric Payan, and Marc Antonini

IEEE TVCG

2018

Out-of-core Resampling of Gigantic Point Clouds

Arnaud Bletterer, Frédéric Payan, Marc Antonini, and Anis Meftah

SGP

2016

Point cloud compression using depth maps

Arnaud Bletterer, Frédéric Payan, Marc Antonini, and Anis Meftah

Electronic Imaging

You can find the exhaustive list on Google Scholar