



Dr. Mathieu Barnachon

*R&D Manager
Senior Engineer - Product Manager
Computer Vision, Machine Learning and Cloud*

Experience

Companies

- 2026–Present **R&D manager**, PROFOTO B.V., Netherlands.
Managing the software and hardware teams for Studio Solution.
- Own quality, stability and release of Studio Systems.
 - Own the continued development of the Profoto apps (iOS, macOS and Android).
 - Own software architecture and technical debt.
 - Coordinate support, installation and service teams with the R&D team.
- 2022–2026 **Software development manager**, PROFOTO B.V., Netherlands.
Managing the development team.
- Head of software development at Profoto.
 - Plan & manage software projects.
 - Responsible for automation, modular and cloud products.
 - Leading external tests and R&D experiments.
 - SAAS products manager.
 - In-charge of the Netherlands office.
 - European patent owner for a new AI-based background removal method
- 2016–2022 **Product Owner & Principal Engineer**, STYLESHOOTS B.V, Haarlem.
Product owner & team lead of the StyleShoots Cloud: an eco-system of connected photo & video robots. Developing new algorithms and methods to control our photo robots, including classical Machine Learning and Deep learning solutions. I'm leading the StyleShoots Cloud, dealing with a fleet of robots, scattered around the world, where no down-time is allowed, and security is a daily concern.
- Detailed achievements:
- Architecturing the cloud: backend and frontend side.
 - Development and deployment of the cloud infrastructure.
 - Monitoring and analysing machines performances and behaviour: data-driven business.
 - Security and usage of the cloud.
 - Photo + Video composition and editing pipeline.
 - Body analysis: machine learning applied to fashion industry.
 - Video styles engine architecture and development.

Frederik Hendriklaan 55 – 2181TE Hillegom, The Netherlands

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2013–2016 **Research Engineer**, NCAM TECHNOLOGIES LTD., Paris.

Developed camera tracking algorithms for real time camera tracking to Broadcast and Cinema industries. Integrate new sensors to the current pipeline (depth-sensors)

Detailed achievements:

- Developed a new software for Cinema-quality camera tracking using the real time camera pipeline and compatible with highly used existing Visual Effects pipeline.
- New sensors integration to the Ncam Camera Tracking Bar.
- Design new Graphical Interface to fulfil with existing Broadcaster and Cinema productions.
- Company internal and external training to new and existing products.
- Converted the development team to the agile process (Scrum).

2008–2009 **Research Engineer**, LIRIS LAB., Lyon.

Developed middleware for game engine, especially tools for game editor using Markerless Motion Capture of facial expression and hand poses.

Academic

Summer 2013 **Post Doctoral reasearch stay**, UNIVERSITY OF AUCKLAND, New Zealand.

Worked on high range scene analysis and understanding, with multiple depth sensors: crowd monitoring in an office environment.

Spring 2012 **Doctoral reasearch stay**, UNIVERSITY OF WINDSOR, Canada.

Developed the "one shot learning" for human action recognition.

Education

2013 **Ph.D. in Computer Science**, *The University of Lyon*, France.

Real time action recognition from examplars

2008 **M.Sc. in Computer Science**, *The University of Lyon*, France.

Image and Video Analysis

2006 **Bachelor in Computer Science**, *The University of Lyon*, France.

Ph.D. Thesis

Title *Real time action recognition from examplars*

Supervisors Professor Saïda Bouakaz & Associate Professor Erwan Guillou

Description This thesis presents a novel approach for human action recognition from examples. Dealing with widely available Motion Capture data (Kinect-like), I present a light training process, yet achieving high recognition score on many usual actions.

Master Thesis

Title *Human body reconstruction from geometrical and photometrical constraints*

Supervisor Associate Professor Erwan Guillou

Description This master thesis presents a reconstruction of the shape of a body, using a Motion Capture approach built on top of the Shape From Silhouette algorithm.

Publications

2 journals *Pattern Recognition – Pattern Recognition Letters*

4 conferences ICPR'12 – ICCBR'12 – ICCBR'11 – ICIIG'09

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4 French CORESA'12 – RFIA'12 – ORASIS'09 – AFIG'08
conferences

Skills

Programming Swift, AVFoundation, C++ 11/14, Cuda, OpenCV, Python
Machine Learning algorithms (SVM, Random Tree, kNN, etc.)
Deep learning for semantic segmentation (Keras).
Design Pattern, Agile (Scrum), PostgreSQL, CloudFoundry, Kubernetes, Docker.

Reviewer Pattern Recognition, IEEE Human-Machine Systems, Machine Vision & Applications,
Information Sciences, ICPR, ISIA, RFIA, CORESA

Languages

English Fluent
French Native

Interests

Photography – Hiking – Bird watching – Woodworking