

Vincent Garcia, Ph.D.

Image processing & machine learning

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Work Experience

2015 - present **Stupeflix** - Paris, France
R&D engineer. Image processing, machine learning and artificial intelligence.

2013 - 2015 **DxO** - Paris, France
Image science engineer. Computational photography, auto exposure, *smart lighting*, spatial and temporal denoising. DxO One. Organizer of the Reading Group.

2011 - 2013 **Five Apes** - Palo Alto, USA
Computer scientist. Machine learning, artificial neural network, feature extraction, object detection and recognition.

2009 - 2011 **INRIA** - Sophia Antipolis, France
Research engineer. Medical image registration. Conception of RPI.

2008 - 2009 **École Polytechnique** - Paris, France
Postdoctoral researcher. Statistics, mixtures of exponential families. Conception of JMEF. Applications to image clustering and classification.

Ph.D. Thesis

Date 2004 - 2008
Title Object tracking in video sequences: from salient points to statistical measures.
Subjects Part 1: Video tracking (rotoscopy) based on keypoint trajectories. Part 2: Real-time video tracking using Kullback-Leibler divergence and kNN CUDA.

Education

2008 Ph.D., Image and Signal Processing
I3S Lab, CNRS, University of Nice, Sophia Antipolis

2004 M.Sc., Image Processing and Computer Vision
University of Nice, Sophia Antipolis

2003 M.Sc., Computer Science and Engineering
Engineering school ESSI, Sophia Antipolis

2002 B.Sc., Applied Mathematics
University of Nice, Sophia Antipolis

Skills

Language

French ●●●●●
English ●●●●●
Italian ○○○●●
Russian ○○○○●

Programming

C++ ●●●●●
OpenCL ○●●●●
CUDA ○●●●●
Matlab ○●●●●
Python ○○●●●
Java ○○○●●

Development

Git, SVN
Xcode
Visual studio
CMake
Qt creator
Eclipse

Open Source Projects

kNN CUDA is a CUDA (GPGPU) implementation of the exhaustive k-nearest neighbor (kNN) algorithm. The proposed implementation outperforms most of the state of the art CPU/GPU kNN implementations. [vincentfpgarcia.github.com/kNN-CUDA/](https://github.com/vincentfpgarcia/kNN-CUDA/)

jMEF is a Java framework that provides a set of tools for mixtures exponential families. jMEF allows to learn, simplify, and provides a hierarchical representation of any mixture of exponential families. [vincentfpgarcia.github.com/jMEF/](https://github.com/vincentfpgarcia/jMEF/)

RPI is a C++ framework for medical image registration. Based on ITK objects, RPI provides a simple and intuitive interface for image registration, while being more generic than the existing ITK framework. github.com/Inria-Asclepios/RPI

Scientific Activities

Publications

1 patent (pending)
2 journal articles
14 conference papers
2 arXiv

Reviewer

SIGGRAPH
IEEE TIP
IEEE ICIP
IEEE ICASSP

Misc.

Awards

TIPA 2014 Best Software

First aid

Life guard

Sports

Longskate (competition)
Swimming
Climbing
Snowboard

Hobbies

Photography
Travels