

# Emmanuel Battesti

## Robotics, Vision & Data Fusion Engineer



### • ADDRESS

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35 years old - driving license

### • PROFESSIONAL EXPERIENCE

- February 2010 to August 2011 | **ENSTA ParisTech**, Paris. Research Engineer in cognitive robotic.
- Developing trajectory generation and motion planning for autonomous car,
  - Developing a **VSlam** system,
  - Implementing in C++ and Urbi with Linux,
  - participating in "**Défi Carotte**" contest,
  - Supervision of a trainee.
- November 2007 to December 2009 | **IEF**, projet **LOVE**, Orsay (91). Research Engineer in data fusion.  
*Project about pedestrians automatic recognition by a vehicle using cameras and sensors.*
- Developing multi-sensor perception system,
  - Detecting pedestrians with lidar data,
  - Searching and comparing data fusion and image processing algorithms,
  - Designing through C/C++ Visual Studio 2005 interface and real-time platform RTMaps.
- October 2006 to October 2007 | **Travel around the World.**
- November 2003 to October 2006 | **Imasys**, Suresnes (92). Application Field Engineer.  
*Application Engineer in the field of industrial and scientific imaging.*
- Helping customers for vision systems,
  - After-sales technical solutions on imaging products
  - Trainer in "Theory of Imaging and Vision" one day a month
  - Managing the website and the Adwords campaign,
- October 2001 to June 2003 | **Johnson Controls**, Osny (95). Integration/validation Engineer in Automotive Diagnostic.
- October 2000 to September 2001 | **SAGEM**, Argenteuil (95). Test Engineer.  
*Flight test analysis of a Rafale monitoring and tracking system (OSF).*
- Designing and developing CAN-bus data analysis tools,
  - Data and images analysis, anomaly detection and performance measurement.
- March to August 2000 | **Laboratoire Régional des Ponts & Chaussées**, Strasbourg. six-months training course.  
*Objects pre-detection and recognition in image database used for road management.*
- Research, Algorithms, Image Processing with Khoros, C Unix Implementation
  - Using content-based image indexation methods.
- Winter 2000 | **Institut de Mécanique des Fluides**, Strasbourg.  
*Developing a system to analyze the motion of a ball in a liquid.*
- Researching, Algorithms, Image Processing, C++ Windows implementation.
- Summer 99 | **Cybernétix**, Marseille. two-months training course.  
*Developing an automated optical bench project.*
- Image Processing, C++ Windows implementation.
- July 1998 | **ENST**, Ecole Nationale Supérieure des Télécommunications, Paris. Four-weeks training course.  
*Edge detection on three-dimensional images with the Canny-Deriché recursive detector,*
- Implementation in C Unix, Image Processing on MRI brain images.

### • EDUCATIONAL BACKGROUND

- 1997/2000 | **Ecole Nationale Supérieure de Physique de Strasbourg. Engineering degree**, specialization : Acquisition and Image Processing.  
**Université Louis Pasteur**, Strasbourg. **master's degree** in photonics and image specialization in Acquisition and Image Processing.
- 1997/1998 | **Université Louis Pasteur**, Strasbourg. Bachelor's degree in Physics.
- 1994/1997 | **Lycée François 1<sup>er</sup>**, Le Havre. **Mathématiques Supérieures, Mathématiques Spéciales MP** (Maths and Physics).

- **IMAGERY**

Cameras	JAI, Pulnix, Atmel, AVT
Frame Grabbers	DALSA Coreco : X64, PC2Vision
Software	RTMaps, OpenCV, SFML, Urbi.
Materials	Robot Pioneer 3, Trainer in industrial lighting and optical system

- **COMPUTER SKILLS**

Computer Languages	C/C++, STL, Boost, Unix Shell, Matlab, Php, HTML,
Operating Systems	Windows Vista, XP, Linux Fedora,
Software	Visual Studio 2008, Eclipse, CMake, SVN.

- **LANGUAGES**

French	Mother tongue
English	Good knowledge
Spanish	Basic

- **INTERESTS**

- Photography classes, vocal jazz, oud
- Travel, trekking,
- Scouting during 9 years,
- AFD: First Aid Training.