

**Laurent Duval: Research engineer (Centrale-Supélec), MSc. Mathematics, PhD
Experienced project manager, Research amateur**

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**Data science analyst/Application catalyst
Information, signal & image analysis; processing, synthesis & learning**

- 2014+ **Invited researcher** at ESIEE Paris, Université Gustave-Eiffel
2000+ **Research engineer and project manager** at IFP Energies nouvelles
- 2016–2020: Project Manager, data science & machine learning
 - 2014–2018: Group leader for IFPEN's 4th (of 9) scientific challenges: Dealing with huge scientific data workflows
 - 2012–2015: Project Manager, bioinformatics and omics data processing
 - 2010–2012: Project Manager, mathematical algorithms for experimental data (process engineering, analytical chemistry)
 - 2010–2012: Project Manager, vibrations, Noise and Acoustic Emissions (passive detection)
 - 2006–2009: Project Manager, image Processing
 - 2003–2004: Project Manager signal Processing in Geosciences: adaptive seismic noise removal
 - 2000–now: Research engineer, data analysis, machine learning, artificial intelligence
 - Industrial contract contributions
 - CGG-Veritas (Geosciences: 2002, 2010-2014), Ford FFA (Engines: 2003-2006) and several SME
 - **Creation:** cross-field skills in signal, image and data processing at IFPEN
 - **Animation:** a team of Signal and Image Processing practitioners
 - **Scientific watch,** performance indices and indicators, bibliometry
- 1998+ **Lecturer**, CentraleSupélec: compression, spectral/image analysis, sparse representations
1998 **Research Assistant** (4 m.), ECE Department, Boston University, Boston, MA, USA. Topic: *Lapped Orthogonal and Generalized Lapped Orthogonal transforms synthesis and optimization* (LOT, GenLOT) (supervision Truong Q. Nguyen, UC San Diego, USA).
- 1997–2000 **PhD** at Université Saclay (form. Paris-Sud, Paris XI, Orsay) in Signal Processing (compression). Topic: *Seismic data compression: filter banks and lapped transforms, synthesis and optimization; development of compression algorithms*, lossless, lossy and progressive, IFPEN Seismic Acquisition System w/ Radio Telemetry (Advisor: J. Oksman, Supélec; Supervisors: Truong Q. Nguyen, UC San Diego, form. Boston university & V. Bui-Tran, form. IFPEN).
- 1996-1997 **Military duty time**
1996 **Interships**
- Axa Courtage (4 m.). *Risk management, prevention and rating* for Small and medium-sized companies
 - Matra Cap Systèmes, now part of EADS (3 m.). *Compression and Coding for Satellite image transmission* (Helios 2, Spot 5)

References given below are ONLY published, in review or submitted journal papers from 2003 to 2022

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