

# Thomas Capelle

*Creative Engineering*

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Belgian-Chilean, 34



## Professional Experience

- 2018-present **Research Engineer**, INES CEA, Grenoble (France).
- Development of algorithms for failure detection in Photovoltaic Systems
  - Deep Learning model for parameter regression for IV- curve of photovoltaic modules
  - Thermal Image segmentation and classification model
  - Project engineer and coordination for Franco-Chilean partnership, international cooperation with multidisciplinary laboratories.
- 2017-2018 **Post-doc**, INSERM - INRIA, Grenoble (France).
- Integration of spatial models with air quality and forecast models.
- 2013-2016 **PhD, équipe STEEP**, INRIA, Grenoble (France).
- Development of mathematical frameworks for urban/transport model calibration
  - Multidisciplinary team work (Engineers, Economists, Urbanists)
  - Supervision of interns work
  - International conferences and peer-reviewed publications
- 2011 **Master Internship**, CIRRELT, Polytech, Montréal (Canada).  
Location and Routing modelling : Development of algorithms for logistics
- summer 2010 **Development Engineer**, LABTUS, Santiago (Chile).  
Development of algorithms to estimate attractors for MUSSA models for Santiago
- 2010 **Assistant Profesor**, Universidad de los Andes, Santiago (Chile).  
Analysis and Algebra for engineers

## Education

- 2013-2016 **PhD Mathematics-Computer Science**, *Université de Grenoble-Alpes*, Grenoble.
- 2011-2012 **Master in Sciences, Transportation Economics**, *Universidad de Chile*, Santiago.
- 2004-2012 **Engineer in Applied Mathematics**, *Universidad de Chile*, Santiago.

## Computer Skills

- Coding Python (Pytorch, numpy, pandas, sklearn), Matlab, CPLEX
- Software Latex, word processing, Adobe suite, Linux, Mac and Windows

## Languages

**Spanish**: mothertongue, **Franch**: bilingual, **English**: bilingual.

## Other Interests

- Experienced Sailor, sailed many classes and two world championships
- Guitar player (10 years) and blues lover
- Director and Producer of a DVD, for the Chilean musician Alejandro Silva
- Actor, Technical Director and Production in the chilean TV series EFECTO PICAFLOR (2002-2010)