# Thomas Capelle

Creative Engineering

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## Professional Experience

2020-today **ML Engineer**, STEADYSUN, Le Bourget du Lac (France).

- State of the art forecasting using Deep Learning, model serving and production with Pytorch.
- Research colaboration with Nvidia in model serving and deployment.
- Semantic Segmentation and Optical Flow
- End2End Cloud Images to irradiance forecasting (ViT/Seq2Seq models)

2018-2020 **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.
- 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)
  - 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 Professor**, 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 ecosystem contributor, fastai, numpy, pandas, sklearn), CI/CD

Software Latex, word processing, Adobe suite, Linux, Mac and Windowz

# 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 live DVD, for the Chilean musician Alejandro Silva
- Actor, Technical Director and Production in the chilean TV series EFECTO PICAFLOR (2002-2010)