Marina Vinyes

Phd in Machine Learning

Education

- 2013–2017 **Phd in Machine Learning**, *Imagine lab*, *Ecole des Ponts ParisTech*, France. *Machine learning algorithms for large matrix models* under the supervision of Guillaume Obozinski.
- 2012–2013 Msc in Computer Vision and Machine Learning (MVA), ENS Cachan, France.
 - Statistical learning

- Convex Optimization
- Probabilistic graphical models
- Reinforcement learning

Kernel Methods

- Sparsity and compressed sensing
- 2009–2011 **Engineering degree in Mathematics and Computer Science**, *Ecole des Ponts ParisTech*, France.
- 2006–2009 **Preparatory classes in Mathematics and Physics**, *Lycée Saint Louis*, France, In the top 3% results.
 - Intensive program preparing for the national competitive exam for entry to engineering schools
- 2003–2006 **High School diploma**, Lycée Français de Barcelone, Barcelona.

Experience

- 2015–2016 **Teaching Introductory course of C++ programming**, *Ecole des Ponts ParisTech*, France.
- 2011–2012 **Research intern in medical imaging**, *Philips Healthcare*, Suresnes.

 Development of an interface with C# to compare MRI images and echocardiographies of heart failure patients
- April-June Lab assistant, Tongji University, Shanghai.
 - 2010 Analyzing data for a study of water pollution by heavy metals
- Sept. 2009 **Internship**, *Sanofi Aventis*, France. Worker in a line work labeling drugs

Projects

April 2014 Google Paris Hash Code 2014, Paris, France.

One day team programming competition. The task was, given a map of Paris and limited time, choose a route for the 8 cars which allows you to cover as many streets as possible.

2013 Master thesis on Large scale online Collaborative Filtering, *Paris*, France.

New online algorithm for making automatic predictions about the interests of a user by collecting preferences or taste information from many users (recommender systems problem).

——— Publications

M. Vinyes, G. Obozinski. Fast column generation for atomic norm regularization, Proceedings of the 20th Conference on Artificial Intelligence and Statistics, 2017.

M. Vinyes, G. Obozinski. **Column generation for atomic norm regularization**, NIPS workshop Learning in High Dimension with Structure, 2016.

Languages

Native speaker in French, Spanish and Catalan. Fluent in English. Basic knowledge of Chinese.

Computer skills

Advanced knowledge in Matlab, C++. Competent in Python.

Interests

Outdoor sports (running, road cycling, swimming) and painting.