

Antoine SINTON
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Born August 31st 1980
In a relationship

French and British nationalities

SKILLS

- **Researcher**
 - ▷ analytical, technical and creative.
- **Technical background**
 - ▷ search engines, indexing systems, data structures
 - ▷ algorithmics, optimisation and modelling
 - ▷ hidden Markov models, Bayesian inference, statistical physics of disordered systems
 - ▷ likelihood and maximum a posteriori methods, coding algorithms (Viterbi/BCJR)
 - ▷ mean field, variational method, belief propagation
- **Programming**
 - ▷ C/C++ (STL, BOOST), Linux, SQL (PostgreSQL), PHP, Javascript, scripting (sed, awk...),
 - ▷ GIS, regular expressions, Matlab, PERL, Python, Java, AJAX, xHTML, CSS, L^AT_EX...
- **Teaching**
 - ▷ graduate teaching assistant for several years.

EXPERIENCE

- **Professional experiences**
 - ▷ 2011 - present : **Founder** of poudro.com. Web oriented freelance development. From server installation to website development, optimisation, security and everything in between.
 - ▷ 2009 - 2011 : **Research engineer** at **Yakaz**, search engine specialised in classified advertisements. In charge of creating and part of the integration of geographical component of the current site. Multifaceted project with a large part of innovation and research in a field where the weight and disparity of the data requires a constant pursuit of optimal solutions. The principal points were the development of a data structure for efficient indexing of geographical data in a full-text search engine; establishing the organizational scheme of the new geographical index; automatic grouping of several noisy geographical databases containing several million entries; creation of the map appearing on the site partially using OpenStreetMap; and writing several Apache modules to serve the images of the map and on the fly generation of the clickable administrative areas on the home and results pages.
 - ▷ 2004 - 2009 : **PhD** at the LPTENS. Numerical development in C/C++ with use of advanced mathematical tools applied to statistical physics and Bayesian inference (hidden Markov models in mean field). Several months spent at Stanford University (California).
 - ▷ 2005 - 2008 : Teaching assistant in charge of workgroups and lab training with first year students at Université Pierre et Marie Curie Paris 6.
 - ▷ 2003 : three month **graduate training** experience at University of California at Berkeley. In lab modelling of Jupiter's satellite Europa's ductile surface.
 - ▷ 2002 : two month **undergraduate training** experience at laboratoire de physique de l'Ecole Normale Supérieure de Lyon. Development of a thermal probe to study variations in thermal conductivity of granular media under pressure.

PROFILE

- **Education**
 - ▷ 2004 - 2009 : **PhD** in statistical physics entitled *Probabilistic models with spatial structure in statistical mechanics and computer science* at the Laboratoire de Physique Théorique de l'Ecole Normale Supérieure in Paris (*Ulm*).
 - ▷ 2003 - 2004 : **Masters** in statistical physics and non-linear phenomenon (DEA de Physique Statistique et Phénomènes non-linéaires) at Ecole Normale Supérieure in Lyon.
 - ▷ 2001 - 2003 : **Bachelor** of Physics (Licence and Maîtrise) at Ecole Normale Supérieure in Lyon.
 - ▷ 2001 - 2005 : **Élève normalien** (i.e. entered through competitive exam) at Ecole Normale Supérieure in Lyon (ENS Lyon).
 - ▷ 1998 - 2001 : Admitted to ENS Lyon and École Polytechnique after [Classes préparatoires aux grandes écoles](#)
 - ▷ 1998 : Science major French Baccalauréat.
- **Languages**
 - ▷ **Bilingual in French and English** (childhood spent in the USA).