



Expert in Machine Learning and Statistics

Experience

Since March 2006

R&D Engineer—[Masagroup](#) (Paris, France).

Within the Machine Learning Department, my activities have been concerned with:

- **Research in Applied Mathematics:** analysis/development/optimisation of new machine learning algorithms for advanced data analysis (model selection, density estimation, regression, classification, clustering, outlier detection, search for frequent item sets, multivariate data visualisation).
- **Industrial Research:** design of new solutions (in Matlab) for statistical process control, root cause analysis, in the context of semiconductor manufacturing (Clients: STMicroelectronics, Philips NXP, Freescale, Infineon, Atmel).
- **Project Piloting:** R&D projects in collaboration with semiconductor manufacturers; internal projects for the development of professional application software.
- **Development:** developing and upgrading C++ components.

2003-2006

Part-time Research Engineer—Masagroup (Paris, France).

My research work as a Ph.D. candidate was financially supported by the French Technical Research National Association ([ANRT](#)), whose aim is to bridge the gap between academic and industrial research in France. In this context, during these three years, I have been working for Masagroup as a research engineer in the field of Machine Learning.

2004-2005

Teaching Assistant—*Jean Monnet University, Orsay, France.*

Teaching Statistics to undergraduate students in Economics.

Education

2003-2006

Ph.D. in Statistical Learning: "**Theoretical Insights on Anomaly Detection and Related Algorithms**"—*Supervised by Pr. Stéphane Boucheron at LRI, Paris XI-Orsay University, France, and by Dr. Rodrigo Fernandez at Masagroup.*

The thesis includes 2 papers presented in the most prominent machine learning conference worldwide (NIPS 2004 and NIPS 2005), 1 article published in Journal of Machine Learning Research, and 1 article to be published in Bernouilli 2008.

2001-2002

M.Sc. (DEA) in "Perception, Reasoning and Natural Language Processing"—*Supervised by Dr. Yann Guermeur at LORIA, Henri Poincaré University, Nancy, France, and by Pr. Bernhard Schölkopf, Max Planck Institute, Tübingen, Germany.*

Including a six-month training period which dedicated to the design of a SVM kernel for protein secondary structure prediction.

1999-2002

Ecole Nationale Supérieure des Mines de Nancy—*Nancy, France.*

School of Engineering: general education in Mathematics, Statistics, Physics, Economics, Computer Science, Operational Research, Languages.

Major in Computer Science and Machine Learning.

1996-1999

Lycée Chaptal College—*Paris, France.*

"Classes Préparatoires aux Grandes Ecoles": Preparation for the entrance exams of Schools of Engineering.

1996

Lycée Jacques Prévert High School—*Taverny, France.*

Scientific A-level (French "Baccalauréat").

Skills

Languages

- French (native).
- English (fluent).
- Spanish (good level, needs practice).
- German (good level, needs practice).
- Chinese/Mandarin (~500 characters).

Computer

- Scientific Programming: Matlab (expert), basic use of Mathematica, Maple.
- Programming: frequent use of C++, C, Java.
- Web Development: frequent use of HTML, PHP, JSP, Javascript.

Hobbies

- Playing music, listening to music and transcribing it.
- Learning foreign languages, reading in foreign languages.
- Various sports (currently dance).

As of October 2008.