



Ludovic Arnold

Email: contact@ludovicarnold.com

Phone: (+33) 6-32-96-90-97

Machine Learning PhD

With a Ph.D. in Machine Learning and 4 years of managing mobile development projects, I am now looking for new challenges in a dynamic team.

Work Experience

Machine learning entrepreneur and iOS developer 2016-present

Founder of my own startup: [datadip](http://datadip.com)

In a partnership with the association "Agir Pour l'École" :

- Complete development of an iOS/iPad application with Swift (UIKit+SpriteKit) with voice recognition for teaching children to read in elementary schools.
- Complete development of an application for labelling sound sequences (Django+JavaScript)
- My position then evolved towards project management with the management of 4 freelances on 3 projects:
 - o (i) an iPad application for teaching children to read (Swift/iOS),
 - o (ii) a dashboard application to present the progression of students in the preceding application (React+Electron),
 - o (iii) an application to test student's vocabulary (React-Native).

Machine learning Ph.D with specialization in deep learning and image classification 2010-2013

LIMSI Laboratory, INRIA-TAO team in Orsay, France. Learning deep representations; toward a new understanding of the deep learning paradigm.

Teaching at the IUT in Orsay: Visual Basic, C++ and systems programming.

Research internships in computer science and machine learning

- LSVN Laboratory at the universit  Laval in Qu bec, Canada : Application of Information Geometry sparsity in RBMs. (April–September 2011)
- INRIA-TAO in Saclay, France : Study of the topology of deep neural networks. (April-December 2009)
- IUCAA in Pune, India : Application of methods of image processing and machine learning for the classification of images of galaxies. (June-August 2008)
- INRIA-FUTURS in Saclay, France : Implementation of algorithms on graphs and formal proof of their correctness with the Coq proof assistant. (February-June 2007)

Studies

MSc in computer science specialized in machine learning at the universit  Paris-Sud, Orsay, France. 2009

MSc in engineering at ESIEA, Ivry, France. 2009

BSc in computer science at the universit  Paris-Sud, Orsay, France. 2006

Skills

Development and design of mobile/desktop applications

Project management and capacity to adapt to new situations

Machine Learning with TensorFlow and Keras or Chainer

Development with Swift, HTML, JavaScript, C++, Scala, Java and with Xcode / Git

Scientific Publications

Learning Deep Representations – toward a new understanding of the deep learning paradigm.

Arnold L. (2013). Thèse de doctorat en informatique.

Layer-wise Learning of Deep Generative Models.

Arnold L. et Ollivier Y. (2012). ArXiv e-prints.

Information-Geometric Optimization Algorithms : A unifying Picture via Invariance Principles.

Arnold L., Auger A., Hansen N., Ollivier Y. (2011). ArXiv e-prints.

An Introduction to Deep Learning.

Arnold L., Rebecchi S., Chevallier S., Paugam-Moisy H. (2011). Paper presented at the European Symposium on Artificial Neural Networks (ESANN 2011).

Unsupervised Layer-Wise Model Selection in Deep Neural Networks.

Arnold L., Paugam-Moisy H., Sebag M. (2010). European Conference on Artificial Intelligence (ECAI).

Optimisation de la Topologie pour les Réseaux de Neurones Profonds.

Arnold L., Paugam-Moisy H., Sebag M. (2010). Reconnaissance de Formes et Intelligence Artificielle (RFIA)

Involvement in the scientific community

Reviewer for the conferences ICLR, ICML, NIPS, etc. Participation in the project ANR ASAP (deep learning). Organization of the special session “Deep Neural Networks ESANN 2011”