Curriculum Vitæ

Yann Esposito

Expert en Machine Learning

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August 16, 2011

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Professional Background

2010→	Co-Founder of GridPocket,
2007→	AirFrance,
10/2006→3/2007	Post Ph.D., Hubert Curien Laboratory,
10/2004→9/2006	ATER (College Degree Teach & Research),
10/2001→9/2004	University Monitor (College Degree Teach & Research),
1995→2000	Miscellaneous summer jobs

Education

2004	CS Ph.D. in Machine Learning at Université de Provence
2001	D.E.A. (Equivalent to Master in Computer science)
2000	Maîtrise in Computer Science
1999	Licence in Computer Science
1998	DEUG MIAS (Math)
1995	BAC S (Math)

Research Activies: Publications

International Journal	[Fundamenta Informaticæ, 2008]
	[PatternRecognition,2004]
Internation Conferences	[ECML 2008] [ICGI 2006] [COLT 2006]
	[COLT 2004] [ICALP 2003] [ICGI 2002]
National Journal	[JEDAI 2002]
National Conferences	[CAp'06] [CAp'04] [CAp'03]

Softwares

GridPocket server architecture	API (Ruby/Rack/JSON/REST)
GridPocket Web Client	Full Javascript (jQuery) Web client
GridPocket iPhone app	(Objective-C/Cocoa) client
SEDiL	Learn Tree Edit Distances (Java/Swing)
DEES	Multiplicity Automata/HMM (C++/STL)

What did I done?

- Written a thesis in Machine Learning about Probabilistic Automata Inference.

- Made YPassword. A password management system, and tools to use it ; an iOS app, a Dashboard Widget, a web interface, a command line tool. I also done the complete website to promote it: ypassword.espozito.com

- Published results about this thesis in major international conferences: [ICALP2003], [COLT2004] & [COLT2006].

- DEES: a 10.000 line C++ command line program. This program implement most HMM standard algorithms & inference algorithms.

- SeDiL: a Java application using Swing UI. The goal is to provide biologist an easy way to use an algorithm that generate Similarity Matrices for strings but also for Tree structures. Most graphics was done by me, including the drawing of trees. I didn't used a library for that purpose.

- An API oriented Ruby framework. For now it is not public.

- For GridPocket I have made two private API server. They manage Electric consumption information.

- I have made a full javascript oriented website to display Electric consumption in real time.

- krambook: the engine I use to create this document. I exported it in HTML, PDF (using LaTeX) and SVG.

- Many other things, like some Mac OS X screensaver, a MetaPost plugin to draw Automata, an RFC-like document to help my student to make a TOR like network, etc...

3   I tried many computer things

Mac   Objective-C with Cocoa (Mac & iOS), Dahsboard widget, Quartz Composer

Object Orient Langauges   Ruby, Javascript, Perl, C++, Java, Python, PHP

Web   Ajax (xmlHTTPRequest, prototype.js, jQuery, scriptaculous...), XML, JSON Ruby (nanoc), PHP/MySQL, Python (Django), REST, SOAP, XML-RPC

Norms   HTML, XHTML, CSS, SVG

Libraries (API)   C++(STL), Java (Swing/Java 2D), Python (PySQLite, wxPython, crypto, socket), Objective-C (Cocoa, iOS, Core Data, Quartz Composer, Core Plot, ASI HTTP Request)

Languages   *haskell*, scheme, C, camL

Unix   Shell scripts (zsh, bash), awk, LaTeX, ConTeXt, metapost

Conception methodology   UML, Merise

IDE   XCode, Environnement Unix (make, gcc,...)

Data Mining Tools   Entreprise Miner (SAS), weka, SVMlight

Version Control Tools   git, Bazaar (DCVS), subversion (svn), CVS

Programming environments   Mac OS X, Unix/Linux (Solaris, Ubuntu, Debian), WindowsXP

UI   Cappuccino, jQuery, scriptaculous, prototype.js, Java Swing, wxPython, Cocoa

Network protocols   Ethernet, TCP/IP, UDP, FTP, DNS, DHCP

Network tools   ifconfig, tcpdump, wireshark (ehtereal),lsof...

Security   bcrypt, scrypt, AES, DES, 3DES, Hamming, PGP, GPG...

Databases   DataMapper (Ruby ORM), MySQL, PostgreSQL, SQLite

4   Jobs

4.1   Co-Founder *&* freelance for GridPocket *2010* →

Sophia Antipolis, France

Product Two API server (one for client, another for administration)

 A private client side web application

 An iPhone Application

 Some Linux boxes to send data to the servers

 A Linux driver

Role Full technical responsibilities

Technical Keywords: Ruby, REST, JSON, HTML, CSS, Javascript, AJAX, jQuery, Objective-C, ASIHTTPRequest, CorePlot, CoreData, C

4.2   AirFrance *2007* →

Consultant

Role   In charge of the Airfrance CMS for their website.

Technical Keywords TeamSite, Perl, XML, XHTML, CSS, javascript, JSP, Unix (Solaris/Linux), Bazaar

Environnement Windows (Cygwin), Sun Solaris, Linux

4.3   Post Ph.D *10/2006* → *3/2007*

Université Jean Monet, Laboratoire Hubert Curien, Saint-Etienne

Product SeDiL

Role Developer

 Details

 Java application: *11 000 lines with javadoc*
 Main functionalities

 • learn edit matrices

- compute edit distances between trees or strings
- visualize trees or sequences (JAVA 2D)
- classification using K means
- Generate random tree couple from an edit distance matrice

Web: http://labh-curien.univ-st-etienne.fr/SEDiL/

Research

Similarity measure between strings or XML trees

Contact Marc Sebban

Technical Keywords UML, Java 1.5, Swing, Java 2D, Java Web Start, Applet, subversion, XML, XHTML, PHP

Environnement Mac OS X, Linux (Debian), Windows XP

4.4   ATER *10/2004 → 9/2006*

Research *&* Teacher, Université de Provence, Marseille
teach 1/2, research 1/6, C++ development 1/3
DEES ; a C++ software

7500 lines of C++ code, 10.000 with comments
Main functionalities:

- Mulitiplicity Automata, HMM *&* PDA Inference,
- Baum Welch *&* Viterbi Algorithms,
- GraphViz export,
- String Generation from many Models,

Languages C++

API STL

Environment Linux (Debian) *&* Windows XP

4.5   Moniteur des Universités *10/2001 → 9/2004*

Université de Provence, Marseille
teach 1/3, research 1/3, C++ Development 1/3
Creation of DEES (see preceeding entry).

5   Diploma

- *2004* CS Ph.D. degree in Machine Learning
- *2001* D.E.A. in Computer Science (equivalent to master)
- *2000* Maîtrise d'Informatique
- *1999* Licence in Computer Science
- *1998* DEUG MIAS (math)
- *1995* BAC S (math)

6 Scientific Publications

International

Journals [FundamentaInforamticævol.862008] [PatternRecognition,2004]

Conferences [ECML2008] [COLT2006] [ICGI2006] [COLT2004] [ICALP2003] [ICGI2002]

Workshop [TAGI05]

National (French)

Journals [JEDAI,2003]

Conferences [CAP2006] [CAP2004] [CAP2003]

Thesis [UniversitédeProvence2004]

7   Projets

YPassword *2008* →

Many different application to manage passwords. Mainly an iOS application:

- YPassword

But there is also:

- a Mac OS X dashboard widget,

- a Cappuccino Web application,

- a jQuery Web application,

- a command line tool,

- an Applescript helper

Rubyzome *2009* →

Ruby API oriented framework. Done with Luc Juggery. This framework is REST oriented and output can be either JSON (preferred), but also XML or HTML.

Anonymous Network Project *02/2006* → *06/2006*

Made a protocol similar to TOR for student.

Other projects

- Web Application used for private team usage at AirFrance *2008* →
  This application is just done *for teh lulz*. Not related to the Airfrance work. But still pleasant.
  Javascript(Prototype.js, Scriptaculous), CSS, PHP/MySQL, Google Talk

- `metapost` package to draw Automata *2003* → *2004*
  %ometapost

- Mac OS X Screensavers *2003* → *2004*
  Objective-C,Quartz Composer,Cocoa

You could find even more information by looking at:

- My personnal website: http://yannesposito.com

- My github account: http://github.com/yogsototh