Resume

Yann Esposito

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Abstract

Yann Esposito's Resume

Contents

1 Yann Esposito

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1.1 Professional Background

2016	→		Clojure Software Engineer for Cisco (Threatgrid), *Remote*
2013	→	2016	Machine Learning Scientist & Software Engineer at Vigiglobe, *Sophia Antipolis, France*
2010	→		Co-Founder of GridPocket, *Sophia Antipolis, France*
2007	→	2013	AirFrance, *Sophia Antipolis, France*
10/2006	→	3/2007	Post Ph.D., Hubert Curien Laboratory, *St-Etienne, France*
10/2004	→	9/2006	ATER (College Degree Teach & Research), *Marseille, France*
10/2001	→	9/2004	University Monitor (College Degree Teach & Research), *Marseille, France*
1995	→	2000	Miscellaneous summer jobs

1.2 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)

1.3 Research Activies: Publications

International Journal	[Fundamenta Informaticæ, 2008]
	[Pattern Recognition, 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]

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2 Presentation

I am French with a Post Ph.D in Machine Learning[1]. Furthermore I love web programming and design.

I am currently working remotely for Cisco Security team as a Clojure Software Engineer.

Previously I worked for Vigiglobe. The first six months I worked with `node.js` (API/MongoDB/Web). Then we upgraded our stack to *Clojure, Haskell, Mesos, Kafka, Druid*, etc... At that time we were two to make all technical decisions. In the end we made a real time analytics of social media content on a scalable architecture. Actually our architecture is able to manage (Aggregation & Machine Learning) thousands of messages per second.[2] In particular, I've written an Haskell twitter stream absorber able to handle thousands of tweets per seconds. And I coded myself a real time sentiment analysis module taking algebraic properties into account to optimize its efficiency.

- During my Ph.D. I made a C++ program (github[3] and resume[4]). I coded most of standard HMM learning algorithms. I developed an algorithm which I invented during my Ph.D. which use some operational optimization algorithm. During this period I published articles in international conferences and I taught Computer Science to college students.

- At the Hubert Curien Laboratory I made my post Ph.D. I developed a scientific application in Java/applet/JWS that should be used by biologists. The code has been updated a bit since my 6 month post Ph.D[5].

- I worked in the web industry for Airfrance. My work environment was quite heterogeneous. From shell scripting to manage huge amount of data, web design and production environment.

- I worked for GridPocket (I am a co-founder). This is a French startup specialized in Electric Grid. I created a private[6] web application.

- I've also written an iOS application to manage passwords[7].

- I am the author of some quite popular blog posts[8].

For an almost exhaustive list of my projects, you could check my github account: github.com/yogsototh

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[1]To be more precise in Grammatical Inference

[2]http://vigiglobe.com

[3]https://github.com/yogsototh/DEES

[4]http://yann.esposito.free.fr/dees.php?lang=en

[5]http://labh-curien.univ-st-etienne.fr/SEDiL/faq.php?lang=en (I like to believe I became a better designer)

[6]Sorry the code is private I can't show it :(.

[7]http://ypassword.espozito.com

[8]http://yannesposito.com/Scratch/en/blog/

3 Public things done

- Cisco (threatgrid) Security & Threat Management.
- Vigiglobe architecture able to analyze thousands of social media messages in realtime. In particular, real time Machine Learning & Statistics.
- YPassword iOS application
- Gridpocket web services (from conception to realization, works in correlation with a mobile app)
- 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.
- For YPassword ; a Dashboard Widget, a web interface, a command line tool.
- Some websites: yannesposito.com, ypassword.espozito.com
- Written a thesis in Machine Learning and published in major international conferences: [ICALP 2003], [COLT 2004] & [COLT 2006].
- A full javascript web application which 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.
- 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…
- a bunch of other projects see http://github.com/yogsototh

4 Technical Competences

Languages	**Haskell**, **Clojure**, **Javascript**, scheme, C, camL, C++, Ruby, Perl, Java, Python, PHP
Web frontend	**elm**, **Clojurescript**, **Reagent**, **Angular.js**, **sass**, etc…
Web frameworks	**compojure-api**, **Yesod**, **servant**, actionhero
ML Tools	**weka**, SVMlight
Stream Computing	**kafka**, **druid**, storm (with clojure)
UNIX	Shell scripts (zsh, bash), awk, LaTeX, ConTeXt, metapost
VCS	**git**, Bazaar (DCVS), subversion (svn), CVS
Mac/iOS	**Objective-C Cocoa (Mac & iOS)**, Dahsboard widget, Quartz Composer

5 Jobs

5.1 Clojure Software Engineer for Cisco *2016 →*

- *Remote*

Product	Security Threat Management
Role	Clojure Software Engineer

5.2 Machine Learning Scientist *&* Software Engineer for Vigiglobe *2013 → 2016*

- *Sophia Antipolis, France*

Product	Scalable Real Time Social Media Analytics
	Sentiment Analysis
	Many client side web applications (Angular.js & reagent)
Role	Machine Learning Scientist
	(fast sentiment analysis, learning protocols, etc..)
	Full stack engineer (backend to frontend architecture)
Keywords	Clojure, Haskell, node.js, reagent, Angular.js, Stream computing

5.3 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
Keywords	Ruby, REST, JSON, HTML, CSS, Javascript, AJAX,
	jQuery, Objective-C, ASIHTTPRequest, CorePlot, CoreData, C

5.4 Consultant, AirFrance *2007 →*

Sophia Antipolis, France

Role	In charge of the Airfrance CMS for their website.
Keywords	TeamSite, Perl, XML, XHTML, CSS, javascript, JSP, Unix (Solaris/Linux), Bazaar

5.5 Post Ph.D *10/2006 → 3/2007*

Université Jean Monet, Laboratoire Hubert Curien, Saint-Etienne

Product	SeDiL
Role	Java Developer
Research	Similarity measure between strings or XML trees
Contact	Marc Sebban
Keywords	UML, Java 1.5, Swing, Java 2D, Java Web Start, Applet, subversion, XML, XHTML, PHP

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/

5.6 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

5.7   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).

6 Diploma

2004	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)

7 Scientific Publications

7.1 International

Journals	[Fundamenta Inforamticæ vol.86 2008][Pattern Recognition, 2004]
Conferences	[ECML 2008] [COLT 2006] [ICGI 2006][COLT 2004] [ICALP 2003] [ICGI 2002]
Workshop	[TAGI05]

7.2 National (French)

Journals	[JEDAI, 2003]
Conferences	[CAP 2006] [CAP 2004] [CAP 2003]
Thesis	[Université de Provence 2004]

8 Projects

Most of my latest programming activities are publicly available at
github.com/yogsototh

8.1 Haskell libraries

- Link to list of packages
- `holy-project`
- `human-readable-duration`
- `wai-middleware-caching-lru`
- `wai-middleware-caching-redis`
- `wai-middleware-caching`

8.2 YPassword *2008 →*

Mainly an iOS application:

- YPassword, `http://ypassword.espozito.com`

I've done fully the website from scratch. Also there are some javascript implementation of YPassword method:

- a Mac OS X dashboard widget,
- a Cappuccino Web application,
- a jQuery Web application,
- a command line tool,
- an Applescript helper

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

Made a protocol similar to TOR for student.

8.4   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* metapost
- Mac OS X Screensavers (YClock *&* YAquaBubbles) *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