

Europass Curriculum Vitae



Personal information

Surname(s) / First name(s)

Address(es)

Telephone(s)

Email(s)

Nationality(-ies)

Date of birth

Foschini Luca

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luca.foschini@ask.com

luca.foschini@sssup.it,

foschini@cs.ucsb.edu,

Italian

17 Aug, 1982

Work experience

Date (from-to)

Name and address employer

Occupation or position held

Main activities and responsibilities

Date (from-to)

Name and address employer

Type of business or sector

Occupation or position held

Main activities and responsibilities

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Name and address employer

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Main activities and responsibilities

Dates(from-to)

Name and address of the employer

2007-10-31 - 2009-04-03

Ask.com

Software Engineer

R&D of new services

2006-08-02 - 2007-09-30

Ask.com (formerly known as Ask jeeves) European R&D Center, Pisa, Corso Italia 58, Pisa, Italy

Development and integration of a news clustering/ranking engine

Software Engineer

Development of a prototype of an efficient system for clustering and ranking a stream of news crawled from the web. Developed the interface for evaluating the system. Helped deploy the prototype in production environment. General system administration tasks.

2005-08-02 - 2006-08-02

Ask Jeeves research Center, Pisa, Corso Italia 58, Pisa, Italy

Research on news clustering and ranking

Research Intern

Development of an efficient system for clustering and ranking a stream of news crawled from the web

2004-06-21 - 2004-08-13

CERN (European Center for Nuclear Research) CH-1211 Geneva 23

System administration, software development

Summer Intern

Installation and development of an effective patch maintenance system for Sun Solaris 8 e 9. Development of a module for enhanced security login for the Apache web server 1.3.

2003 - 2004

AICA, P.le Morandi 2, Milano

Web development

Web maintainer/web developer

Web developer/administrator of the Italian Olympiad in Informatics web portal, a resource for training and a problem repository for students wanting to attend the local selections

2002 - 2005

AICA (associazione italiana per l'informatica e il calcolo automatico) [Italian association for computer science] p.le R. Morandi, 220121 Milan, Italy

Type of business or sector
Occupation or position held

Main activities and responsibilities

Part Time Collaborations

Date (from-to)

Name and address employer

Type of business or sector

Main activities and responsibilities

Date (from-to)

Name and address employer

Type of business or sector

Main activities and responsibilities

Date (from-to)

Name and address employer

Type of business or sector

Main activities and responsibilities

Date (from-to)

Name and address employer

Type of business or sector

Main activities and responsibilities

Education and Training

Date (from-to)

Name and type of organization
providing education and training

Principal subjects/occupational skills
covered

Date (from-to)

Name and type of organization
providing education and training

Principal subjects/occupational skills
covered

Date (from-to)

Name and type of organization
providing education and training

Principal subjects/occupational skills
covered

Title of qualification awarded

Date (from-to)

Name and type of organization
providing education and training

Principal subjects/occupational skills
covered

Title of qualification awarded

Computer science

Tutor and trainer of the Italian team designated to participate in the International Olympiad in Informatics (IOI)

Assisted professor in training and tutoring the Italian team designated to participate in the International Olympiad in informatics, configured and set up the local contest environment, reviewed the problems for the local selections and the lecture topics.

Sep. 2005 - Dec. 2005

Universita' Bocconi, Milan - Italy

Software development

Development of a python flexible parser for a semi-structured stream of news (PR Newswire)

Mar. 2005 - Dec. 2005

Universita' Bocconi, Milan - Italy/ Laboratory of economics and management (LEM), Pisa - Italy

Software development/web development

Development of a system for crawling and processing information about publications and citations provided by ISI web of knowledge along with a web based facility to validate the goodness of results.

Jan. 2004 - Jun. 2006

Sant'Anna School of Advanced Studies

System administrator/web administrator/database administrator/web developer

Development of the *Lider Center* web portal (www.lider-lab.org). Database and system administration of the web site host

Sep. 2002 - Jun. 2005

Sant'Anna School of Advanced Studies

System administrator

System administrator of Intranet facilities and web facilities on behalf of the Sant'Anna School of Advanced Studies pupils

Oct 2008 -

Ph.D. student Department of Computer Science, University of California, Santa Barbara. Advisor: Prof. Subhash Suri

Data stream algorithms, compressed sensing, dimensionality reduction techniques

Oct 2005 - March 2006, Oct 2006 - Dec 2006

Visiting researcher at the Reliable Software Group, University of California, Santa Barbara CA, under the supervision of Professor Giovanni Vigna, UCSB

Network security, distributed stateful rule matching system for intrusion detection

Sept 2004 - May 2007

First-level graduate student attending II level degree course (M.Eng) in computer engineering at the University of Pisa

Computer networks, network security, control theory, database systems, operative systems

Second-level degree (M.Eng) received in May, 9th, 2007 with the grade of 110/110 cum laude

Sep. 2004 - Jun. 2007

First-level graduate student at Sant'Anna school for advanced studies. The full scholarship provided by Sant'Anna has been renewed after a national competition.

Operative systems, real time systems

Diploma received in June, 28, 2007 with the grade of 100/100.

Date (from-to)
 Name and type of organization providing education and training
 Principal subjects/occupational skills covered
 Title of qualification awarded

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 Name and type of organization providing education and training
 Principal subjects/occupational skills covered
 Title of qualification awarded

Date (from-to)
 Name and type of organization providing education and training
 Principal subjects/occupational skills covered
 Title of qualification awarded

Oct. 2001 - Jun. 2003

Pupil of the Sant'Anna School of advanced Studies. Holding a full scholarship won in a science-Olympiad-like national competition, ranked 2nd out of 276 participants for 8 positions. Student at Sant'Anna in the engineering branch.

Advanced mathematics (discrete mathematics, variational calculus, frequency domain calculus) advanced statistics (stochastic processes) physics (classical and statistic thermodynamic, classical mechanics, electromagnetism theory) grid computing, neural networks

Diploma received in June, 7, 2005 with the grade of 100/100 cum laude.

Oct. 2001 - Mar. 2003

First-level degree (B.Tech.) student at the University of Pisa in the computer science engineering faculty dept.

Theoretical and applied computer science, applied mathematics, electronics, computer programming, control theory.

First-level degree (B.Tech.) got in March, 3rd, 2004 with the grade of 110/110 cum laude, a quarter earlier than the minimum course duration. Average mark: 30.5 out of 30 (30 out of 30 cum laude counted as 33)

Sep. 1996 - Jun. 2001

Liceo scientifico G. Ricci Curbastro Viale degli Orsini, 6, 48022 Lugo (RA), Italy (scientific lyceum) scientific-technological branch (Brocca experimentation)

Informatics, mathematics, physics, chemistry

Maturita' scientifica. secondary school final exams mark: 100 out of 100.

National Mathematics Olympiad (2001) (as a winner of the regional selections)

National Physics Olympiad (2001) (as a winner of the regional selections)

National Chemistry Olympiad (2001) (as a winner of the regional selections), Ranked 6th in the National competition.

International Olympiad in Informatics (2000 and 2001) (as a winner of the national selection)

Spoken languages

Mother tongue(s)

*Self-assessment
 European level^(*)*

English

French

Spanish

Italian

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
B1	Independent user	B2	Independent user	B1	Independent user	B1	Independent user	A2	Basic user
A1	Basic user	B1	Independent user	A2	Basic user	A2	Basic user	A1	Basic user

^(*)Common European Framework of Reference (CEF) level

Technical Skills and competences

Theoretical knowledge

Discrete mathematics, algebra, calculus, algorithm theory (strings and graph above all, dynamic programming), statistics, fundamentals of social network theory, cluster theory, machine learning, fundamentals data mining techniques

Applicative skills: advanced knowledge

Advanced knowledge:

UNIX operative system: Tru64 Unix, Debian Linux, Ubuntu
LATEX document preparation system
C/C++ (STL and Boost library), Pascal, Basic Programming Language
Python scripting language (plus extensive knowledge of standard modules)
PHP web development language
Tools for large scale software development: cvs, svn and doxygen
Database management techniques, in particular, the SQL language

Applicative skills: good knowledge

TCP/IP programming
Low level packet manipulation: scapy, ettercap, ethereal, tcpdump
Raw networking on Linux
Perl, Java, Javascript, Bash scripting
Assembly for x86 and PIC micro controller.
Web designing techniques, in particular, HTML and CSS.
Knowledge in system administration and network administration tools
Web portal tools, basics of Ajax programming
Web service and Grid Services, Globus GT3, Grid computing features
XSLT transformation and XML parsing
docbook documentation system
Java Mobile: Midlet development.
Tools for data analysis and visualization: Matlab, gnuplot, R

Additional Information

Personal interests

Computer science, algorithms, Discrete math
Data compression techniques
Image manipulation techniques
Data mining and clustering, machine learning
Information retrieval and data crawling
Economics and social networks
Financial forecast and time series analysis.
Computer security
Data stream algorithm, dimensionality reduction

Awards

Certificate for participation in the XII International Olympiad in Informatics held in Beijing, China, selected as a member of the Italian team in the Italian Olympiad in Informatics

Certificate for participation in the XIII International Olympiad in Informatics held in Tampere, Finland, selected as a member of the Italian team in the Italian Olympiad in Informatics.

Hobbies

Volleyball

Swimming and athletics (javelin and high jump)

Guitar

Project and publications

A. Gulli, S. Cataudella, L. Foschini *TC-SocialRank: Ranking the Social Web*, The 6th Workshop on Algorithms and Models for the Web Graph (WAW09)

L. Foschini, A. V. Thapliyal, L. Cavallaro, C. Kruegel, G. Vigna *A Parallel Architecture for Stateful, High-Speed Intrusion Detection*, Fourth International Conference on Information Systems Security (ICISS 2008)

M. Cococcioni, L. Foschini, B. Lazzerini, F. Marcelloni, *Complexity Reduction of Mamdani Fuzzy Systems through Multi-valued Logic Minimization*, 2008 IEEE International Conference on Systems, Man and Cybernetics (SMC08)

Luca Foschini, Roberto Grossi, Ankur Gupta, Jeffrey Scott Vitter, *When indexing equals compression: Experiments with compressing suffix arrays and applications* ACM Transactions on Algorithms 2(4): 611-639 (2006) This paper concerns in part the first level degree thesis.

L. Valcarengi, L. Foschini, F. Paolucci, F. Cugini, and P. Castoldi, *Topology Discovery Services for Monitoring the Global Grid* Communications Magazine, Optical Control Plane for Grid Networks: Opportunities, Challenges and the Vision, March 2006. This paper concerns in part the first level diploma thesis for the Sant'Anna School of Advanced Studies.

L. Valcarengi, F. Paolucci, L. Foschini, F. Cugini, P. Castoldi. *Centralized and Distributed Grid Topology Discovery Service Implementations* Accepted as a Poster at Hot Interconnects 13, (IEEE Symposium on High Performance Interconnects). This poster concerns in part the first level diploma thesis for the Sant'Anna School of Advanced Studies.

L. Foschini, R Grossi, A. Gupta, J. S. Vitter. *Fast Compression with a static model in High-Order Entropy* Accepted as a paper at the DCC 2004 (IEEE Data Compression Conference) The paper is a summary and a follow-up of my first Level degree (BS) thesis.

MATLAB package for finding parameters in Gaussian mixtures Project developed together with classmates at Sant'Anna Pier Giorgio Raponi and Emiliano Marmioli for the course in Statistics and Probability held by Prof. A. M. Sabatini (Sant'Anna)

Contour coder for flat-colored images Project developed with Ludovico Cavedon (a classmate at Sant'Anna) for the course Data Compression held by Dott. A.C. Mennucci, Scuola Normale Superiore, Pisa.

Small Worlds tutorial Tutorial on the topic Small Worlds. It was co-authored with Prof. Bruno Codenotti (Research Director of the Institute for Computational Mathematics at the Italian National Research Council) and published on Laboratory of Economics and Management (LEM), Sant'Anna School of Advanced Studies, Pisa, Italy. It is available online at:
<http://ideas.repec.org/p/ssa/lemwps/2002-11.html>

Patents

Antonio Savona, Antonino Gulli, Luca Foschini, *Systems and methods for selecting and organizing information using temporal clustering* United States Patent: 20070260586

Antonio Savona, Antonino Gulli, Luca Foschini, Giovanni Deretta *Systems and methods for clustering information* United States Patent: 20090070346

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References

Prof. Subhash Suri Professor Department of Computer Science, University of California, Santa Barbara

Prof. Paolo Ancilotti Full Professor of Operating Systems at the University of Pisa and first level Professor of Theory and Application of Electronic Calculators at the Sant'Anna School of Advanced Studies. Director of the Sant'Anna School of Advanced studies, my personal advisor at the Sant'Anna School

Prof. Paolo Boldi Associate Professor of the Computer Science Department, University of Milan. Tutor at the Olympiad in informatics.

Prof. Bruno Codenotti Research Director of the Institute for Computational Mathematics at the Italian National Research Council. Co-author of published paper.

Prof. Roberto Grossi Associate Professor of the Computer Science Department, University of Pisa. Tutor at the Olympiad in informatics, first level degree (BS) thesis advisor and Co-author.

Dr. Antonio Gulli Director, Advanced Search Projects, Ask.com European R&D Center, Pisa (Italy)

Dr. Antonio Savona Ask.com media Research Manager, Ask.com European R&D Center, Pisa (Italy)

Dr. Luca Valcarengi Assistant Professor at the Sant'Anna school of Advanced Studies of University Studies and Doctoral Research of Pisa, Italy. Sant'Anna I level Diploma thesis advisor.

Prof. Giovanni Vigna Associate Professor, Reliable Software Group, Department of Computer Science, University of California, Santa Barbara. II level degree (ME) thesis advisor.

Prof. Sebastiano Vigna Associate Professor of the Computer Science Department University of Milan. Tutor at the Olympiad in informatics.

Dr. Artur Wiecek Member of the systems team carries out Unix Systems Administration for the AIS servers at CERN. Advisor for the CERN summer internship.