Davide Vernizzi

Curriculum Vitæ

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Date of birth: November 23rd, 1981

I am currently working as a software engineer at Ennova Srl, which was awarded with the prize of Italian Startup of the Year 2014.
I develop web applications, backends, and APIs for mobile applications, which are mainly used by telecommunication companies and energy providers, such as Telecom Italia, Vodafone, Enel, and Iren Energia.
While working at Ennova, I have been in charge of integrating clients' databases, I developed web services used by clients' IVR, and I coordinated the efforts of my colleagues in order to create various mobile apps. Moreover, I personally wrote some of the most critical server side building blocks in many projects, and I have helped to design Ennova's cloud computing architecture.
Before working on web and mobile applications, I obtained a Ph.D in security of computer systems. In this context, I have participated in the European research project Open_TC, aimed at creating an open-source framework for Trusted Computing. Afterwards, I worked on security of cloud computing, contributing to the research project TClouds, whose goal was to create a resilient and privacy-friendly cloud computing platform.
While holding my positions, both in university and in industry, I have always been involved into the training of students or new employees.

Work experience

since 2011 **Developer**, *Ennova s.r.l*, `http://www.ennova.it/`.
At Ennova, I work as project manager and software engineer. In this context I keep contacts with the customers, design solutions and write part of the code. The development tasks include integrating clients' databases, developing web services used by clients' IVR and API used by various mobile apps.
Beside project-specific tasks, I have also contributed to design and build Ennova's cloud architecture – which is based on Amazon AWS – and to train new employees.

2010 – 2011 **Postdoctoral researcher**, *Politecnico di Torino, Computer Security Group*.
Following the Ph.D I continued my research activity at Politecnico di Torino, focusing on *Cloud Computing*. In particular I joined TClouds, a research project funded by the European Union. The main goal of TClouds is to develop an advanced cloud infrastructure that can deliver computing and storage that achieves a new level of security, privacy, and resilience. I coordinated the efforts of Politecnico di Torino's group within TClouds. My research group studied how cloud computing affects security of logs. We proposed solutions to enhance the security of logs in clouds and we implemented these proposals in a library. Moreover, we integrated this concepts into OpenStack

2006 – 2010 **Research activity**, *Politecnico di Torino, Computer Security Group*.
I studied the possibility to use Trusted Computing techniques to increase privacy in secure network communication. In particular I used standard TLS extension to carry integrity measurements within the standard TLS handshake. The result of such an enhanced handshake is called trusted channel. This idea is described in many scientific papers and is used as ground for other publications. I also provided an open source implementation of an efficient trusted channel which is based on the OpenSSL library.

since 2003 **Consultant and teacher**.
I took part as a consultant in many different projects, including security, cryptographic libraries and web applications. Furthermore, I have taught at Politecnico di Torino as teacher assistant and for professional developing in the field of security.

Education

15 April 2010 **Ph.D. in Computer Science**, *Politecnico di Torino*.
Thesis: On Trusted and Privacy-Friendly Network Communications.
Advisor: Prof. Antonio Lioy.

5 May 2006 **M.Sc. in Computer Engineering**, *Politecnico di Torino*.
Thesis: Self-adaptive parallel algorithms for computer vision applications. This thesis was written in collaboration with the École Nationale Supérieure d'Informatique et des Mathématiques Appliquées de Grenoble (ENSIMAG).
Advisors: Prof. Bartrolomeo Montrucchio (POLITO), Prof. Jean-Louis Roch (ENSIMAG).

11 July 2005 **Diplôme d'Ingénieur (equivalent to M.Sc. in Computer Engineering)**, *École Nationale Supérieure d'Informatique et des Mathématiques Appliquées de Grenoble (ENSIMAG)*.
Thesis: Self-adaptive parallel algorithms for computer vision applications.
Advisor: Prof. Jean-Louis Roch (ENSIMAG).

Skills

Programming PHP, MySql, Javascript, HTML, CSS, C, Java, Python

Misc Amazon Web Services, Cryptography and computer security, UML, Vim, LaTeX, Office

OS Linux, Mac OS X, Windows

Languages and other information

Languages Native language: Italian. Fluent in English and French.

Interests Reading, photography, travels.