Davide Vernizzi

Curriculum Vitæ

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I am currently working as a software engineer at Ennova Srl, which was awarded with the prize of Italian Startup of 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 Ennova's developers in order to develop various mobile apps. Moreover, I personally developed 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. Following this, 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.

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).

Work experience

since 2011 — **Developer**, *Ennova s.r.l*, `http://www.ennova.it/`.
While working at Ennova, I have been in charge of managing some of its projects. In this context I kept contacts with the customers, designed the solutions and wrote 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 also contributed to designing and building Ennova's cloud architecture – which is based on Amazon AWS – and to traing new employees.

2010 – 2011 **Postdoctoral researcher**, *Politecnico di Torino, Dip. di Automatica e Informatica*.
Following the Ph.D I continued my research activity at Politecnico di Torino, focusing on *Cloud Computing*. In particular I joined TClouds, an EU-funded research project. 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 a library that implements these proposal. Moreover, we integrated this concepts into OpenStack

2006 – 2010 **Research activity**, *Politecnico di Torino, Dip. di Automatica e Informatica*.
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.

2009–2010 **Consultant**, *SmartRM S.r.l.*, `http://www.smartrm.com` , Torino.
I did consulting for SmartRM, a company specialized in developing encryption software that allows users to easily protect and share digital content. I helped SmartRM to integrate *Trusted Computing* principles to content protection.

since 2003 **Consultant**.
I did consulting for many different projects.

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.

Teaching Teaching at Politecnico di Torino as teacher assistant and teaching to private companies as teacher.