Tulio de Souza

Software Engineer

5 Ellison Apartments, Merchant Street
E3 4PT
☏ *07594640627*
✉ *contact@tuliosouza.com*

Work Experience

2007–now	**Software Architect and Software Engineering Team Leader**, *Avanti Communications Ltd*, London/UK, http://www.avantiplc.com/.

Avanti Communications is a supplier of satellite communications services for business, institutional and residential customers. Avanti delivers broadband and corporate data connectivity as well as critical applications such as Business Continuity. All these services are delivered across Europe directly or via its comprehensive network of resellers, wholesalers and virtual network operators. On top of that, Avanti's first satellite will be launched late 2009.

Software Architect

description	Design and Implementation of the Operation Support System (OSS) for the operations area of the company. It is a WEB application that supports multi-vendors' satellite terminals and wireless equipament, providing Avanti and its partners with an easy and intuitive way of installing and throubleshooting satellite broadband services.
resources	PHP, Drupal, CSS, JavaScript, MySQL, Oracle, MsSQL, Eclipse, Linux, Satellite Controller (HUB), Java, C, Traffic Shapper, DNS, SNMP, SAP Business One.

Software Engineering Team Leader

description	Alocating activities across the team in order to suite deadlines. Definition and enforcement of processes to be followed by the team and other members of the company, for example in the creation and/or changes of requirements. Attendence in operations, networking and new products development meetings as the member representative of the team. The recruitment of new developers is also part of the responsability.
resources	Projects Management Tool (Redmine), control version system (subversion), wiki, regular meetings, agile methodology (XP Programming).

2004–2007	**Project Manager and Security Developer**, *LabSEC - Computer Security Laboratory*, Florianópolis/BR, http://www.labsec.ufsc.br/.

LabSEC is part of the Department of Computer Science of the Federal University of Santa Catarina. The Lab's main goals are: to study, research, evaluate and implement solutions in the computer security field. In particular: cryptography, digital signature, computer security systems, public key infrastructure and cryptographic protocols. The two main projects in the lab were ICP EDU and João de Barro. The ICP EDU project developed a low cost Hardware Security Module (OpenHSM) for Educational Institutions and built a public key infrastructure across the Education Institutions in Brazil, using the developed HSM. The João de Barro Project developed the new root certification authority solution to be used in the Brazilian Public Key Infrastructure. The LabSEC was responsible for developing the certificate management suite (YWAPA).

Quality Manager

project	João de Barro - YWAPA

description	Reponsible for the quality management of the project. It was used CMMI level 2 as reference.
resources	CMMI, Quality Management Document, Regular Meetings, Code Inspection

Security Module Developer

project	João de Barro - YWAPA
description	Development of a Cryptographic Security Provider in C++ to support the requirements coming from other modules (core, user interface and persistance). Its result was a fully object oriented library (libcryptosec) that has been used for other projects in the Lab. A detailed study of OpenSSL internal functionality had to be performed.
resources	C++, OpenSSL, Object Oriented Programming, CMMI, UML, Red Hat, PKI, Smart cards, Secret Sharing, PKCS#11

Development Team Leader

project	ICPEDU
description	Development of an embedded application in C to manage the life-cycle of cryptographic keys. Another 2 applications written in C were required: client application to allow remote management of the HSM and an OpenSSL engine to allow the use of those keys managed by the HSM.
resources	C, OpenSSL, OpenSSL Engines, PKI, Sockets, SSL, Embedded Application, Secret sharing, FreeBSD, Smart cards.

2003–2004	**Network Administrator, Web Developer and User Support**, *COPERVE*, Florianópolis/BR, http://www.coperve.ufsc.br/.
	This organisation writes and applies the Federal University of Santa Catarina (UFSC) admission exams. This exam is required in order to join the university. UFSC is a free public University and every year around 40,000 people take this exam.

Network Administrator

description	Installation, maintenance and upgrades of the network. These activites were developed with full control over the whole network.
technologies	Linux, Routers, Web servers (Apache + SSL), Mail servers (Qmail and Postfix), Firewalls (iptables, DMZ, snort, nat, ipw), Database servers (Sybase and MySQL), Anti-virus server, File sharing server (Samba), DNS Server (Bind).

User Support

description	assist COPERVE's employees in computer related enquiries

Web developer

description	implementation of the subscription system for the admission exam and other additional applications
resources	PHP, HTML, CSS, JavaScript, SQL, Sybase, MySQL

2002–2002	**Network Administrator, Hardware maintenance and User Support**, *Secretary of the Treasury - SEF-SC*, Florianópolis/BR, http://www.sef.sc.gov.br/.

SEF-SC is a Government Institution that manages the finance sector of Santa Catarina state. It includes more than 30 branches distributed around the state and has a main building in Florianopolis, capital of Santa Catarina. In this site works more than 300 people.

Network Administrator

description	Keep the existent network environment up and running.
resources	Linux, Windows 2000 Server, Print Servers, Routers, Routers, Switches, Active Directory.

User Support

description	assist the SEF's employees in all kinds of problems involving computers: from software to network issues.

Hardware Maintenance

description	Throubleshoot computer related equipaments in order to fix their problems. It includes formatting hard-disk, operational system installations, peripherals replacement, and others.
resources	Microsoft Windows, Installation of windows applications, hardware throubleshooting and replacement

Education

2006–2008	**M.Sc. in Computer Science**, *Federal University of Santa Catarina*, Florianópolis, Brazil.

Master Thesis

title	*Technical and theoretical aspects of the management of the life cycle of cryptographic keys in the OpenHSM*
grade	First Class Honour
supervisor	Professor Ricardo Felipe Custódio

2007–2007	**General English (GE) and CAE Classes**, *Waterloo School of English*, London - UK.

GE - All the way from intermediate to advanced level
CAE - Approved in the Certificate in Advanced English exam in December/2007

2001–2005	**Bachelor in Information Systems**, *Federal University of Santa Catarina*, Florianópolis, Brazil.

Undergraduate Thesis

title	*Embedded applications for management of cryptographic keys*
grade	First Class Honour
supervisor	Jean Everson Martina
co-supervisor	Professor Ricardo Felipe Custódio

Languages

portuguese **Native Speaker**

english **CAE Certified**, *in December 2007*.
CAE is offered by Cambridge ESOL Examinations. Homepage: www.cambridgeesol.org.
CAE is at Level C1 of the Common European Framework of Reference for Languages (CEFR)

Publications

SBSEG 2009   J. E. Martina, **T. C. S. de Souza** and R. F. Custódio. Ceremonies Design for PKI's Hardware Security Modules. In SBSEG 2009: 9th Brazilian Symposium on Information and Computer System Security, Campinas, São Paulo, Brazil, September 2009.

PASSAT 2009   J. E. Martina, **T. C. S. de Souza** and R. F. Custódio. Ceremonies Formal Analysis in PKI's Context. In PASSAT 2009: The 2009 IEEE International Conference on Information Privacy, Security, Risk and Trust, Vancouver, Canada, August 2009.

IDTrust 2008   **T. C. S. de Souza**, J. E. Martina, and R. F. Custódio. Audit and backup procedures for hardware security modules. In IDtrust '08: Proceedings of the 2008 7th Symposium on Identity and Trust on the Internet, Gaithersburg, MD, USA, March 2008. ACM.

EuroPKI 2007   J. E. Martina, **T. C. S. de Souza**, and R. F. Custódio. Openhsm: An open key life cycle protocol for public key infrastructure's hardware security modules. In Fourth European PKI Workshop: Theory and Practice, volume 4582 of Lecture Notes in Computer Science, pages 220–235, Palma de Mallorca, Spain, June 2007. Springer-Verlag Berlin Heidelberg.

Personal Information

gender   Male
date of birth   06 September 1983
nationality   Italian
Brazilian

References

References available on request.