

# Alok Menghrajani

## Network Security Engineer

alok.menghrajani@gmail.com

+41-78-7408897

<http://www.alokonline.com/>

### PERSONAL

**Nationality:** Swiss

**Date of birth:** 5<sup>th</sup> August 1981

### Objective

Seeking a full time position or part time / consulting position in a large ICT group involving research and development (R&D) in the field of network security and web technologies.

---

### EDUCATION

**Ecole Polytechnique Fédérale de Lausanne (EPFL)** - Lausanne, Switzerland

2000-2005, 4½ years engineering program

Master of Science (MSc) Computer Science (ing. info. dipl. EPF)

---

**Carnegie Mellon University** - Pittsburgh PA, USA

2002-2003, one academic year

School of Computer Science (exchange program)

---

### CERTIFICATIONS & DISTINCTIONS

**CEH**, 2007 (EC-Council, Certified Ethical Hacker)

**CCNA**, 2007 (Cisco Certified Network Associate)

---

### WORK

#### EXPERIENCE

Oct 2007 - Present

#### independent consulting

I am currently working as an independent consultant. My clients include ilion Security S.A., my former employer. I am also involved as the CTO of a web project.

I have kept up my security related research. I am in the process of publishing another research paper closely related to covert communications (see below).

Mai 2005 - Oct 2007

**ilion Security SA** - Geneva, Switzerland

Initially joined as a junior security auditor. My primary task was to perform ethical hacking audits in order to assess our clients' security risks.

I have had the opportunity to work with a very wide range of security devices, such as: web servers, dns server, email servers, vpn gateways, Microsoft exchange servers, etc. Audit types included trojan based audits (which sometimes required social engineering), internal audits, security consulting, etc.

I was in charge of setting up and maintaining the IT infrastructure. This involved keeping servers up-to-date (security watch), providing technical support to the other employees and training interns.

A significant amount of time was spent on various R&D tasks: improving audit methodologies, writing tools, scripts and exploits, attending conferences, preparing live hacking demos, etc. Some of the development work was outsourced to Russia, which provided me with valuable outsourcing experiences.

I co-authored a research paper (Covert communications: subverting Windows applications), which has been published at the sans.org reading room.

Aug 2004 - Feb 2005

**IBM, T.J. Watson Research Center** – Hawthorne NY, USA

6 months internship as part of my Master thesis. I worked with the Service Management Middleware Group on data center automation. I used AI algorithms that modeled data centers (network and software aspects) in order to optimize automation processes. I participated with the filling of a patent, which was granted in November 2006.

This internship provided me with insight on how large data centers are operated and the problems faced by some of IBM's clients.

Winter 2003 - 2004

**Teaching Assistant, EPFL** - Lausanne, Switzerland

Teaching assistant at EPFL, for 2nd year programming course (C, Unix, Perl).

---

Summer 2003

---

**Cyberonix, Inc - Oakland CA, USA**

Worked for 4 months. Unix administration. Security related project design and implementation (C and C++). Project involved pattern recognition, linux server design and implementation, windows client design and implementation, video (video4linux, directX, custom font rendering).

---

**ACADEMIC  
RESEARCH  
EXPERIENCE**

Winter 2003 - 2004

---

**Laboratoire d'Architecture des Processeurs, EPFL - Lausanne, Switzerland**

«Transparent PLD use from Java» semester project involving embedded systems and a hybrid architecture (ARM processor and FPGA reprogrammable chip). Created a complete Linux-based development environment with a JVM, library to use the coprocessor from Java, using the coprocessor in a transparent way, testing the system using IDEA encryption algorithm.

February 2001

---

**Laboratoire de Génie Logiciel, EPFL - Lausanne, Switzerland**

Programmed a java graphical programming interface for COOPN (Petri-nets) environment.

---

**ACADEMIC  
PROJECTS**

1999 - 2004

---

**Main focus includes:**

VHDL / Hardware design (transistorless adder, MIPS processor, robotics, vga graphics card), computer graphics programming (opengl and virtual worlds), and low level systems (I designed a multitask kernel, a compiler, a malloc library, etc.)

For detailed information, course overview, project reports, source code please visit my website: <http://www.alokonline.com/projects/>.

---

**SKILLS**

**Mathematics and Physics:** Very strong background.

**Programming:**

Confident with most languages and development environments: C, C++, C#, .Net, Java, Flex, J2EE.

Unix/Linux and Windows programming.

Very strong prototyping & RAD development skills.

Strong scripting skills (bash, perl, python, ruby).

Software Engineering (Rose UML tools, Eclipse Modelling Framework, model transformations).

Databases used include DB2, mySql, Oracle, postgresql and SQL Server.

Windows and Linux administration.

Experience with banking software (Avaloq, etc.) and the banking environment (network monitoring, firewall audit, etc.).

---

**NON TECHNICAL**

**Sports**

Sports are an important aspect of my life, providing me an important balance. I play badminton several times a week. I am currently the vice president of a local team (Badminton Rudi Team), which involves managing various aspects of the club such as organisation of tournaments.

I also play team sports, such as soccer and ultimate frisbee.

**Languages**

**English, French:** Fluent (both are my native languages).

**Hindi:** Good knowledge.

**German:** Basic knowledge.

---

I can provide references and grades if requested.