

# Susana Soriano Ramirez

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October 2004.



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## Qualifications

- Ten years of experience as a Systems Administrator.
- Excellent Solaris System Administration Skills.
- Excellent Linux and MacOS X System Administration Skills.
- Programming skills in Perl, ksh, AWK, C.
- Excellent Naming Services (DNS, NIS, NIS+, NFS, FNS, LDAP) Administration Skills.
- Advanced Unix troubleshooting skills.
- Windows NT/2000 Administration Skills.
- Strong written and oral communication ability in English and Spanish.
- Medium written and oral communication ability in German.

## Relevant Experience

### **Systems Administrator,**

May 2002 to date  
IT Support Group, Computer Science Department,  
ETH Zürich.

Main achievements:

- Configuration of an LDAP directory services using Sun ONE Directory Server.
  - Creating general schema to have a hybrid environment using Solaris 8, Solaris 9 and Linux (Red Hat 7.x) as clients.
  - Creating referrals for accessing information between LDAP servers.
  - Configuring a master server and three replicas.

- Configuration and maintenance of an Imageserver and Bootserver using Jumpstart for installation and configuration of Solaris 8 and Solaris 9 machines.
- Configuration and maintenance of File Servers.
- RAID configuration and maintenance. UFS and XFS volumes.
- General support of Linux RedHat 7.x, MacOS X 10.x, Solaris 2.x, 8, 9, Irix 6.x.
- Minor hardware maintenance on PC and SUN Ultra machines.
- Configuration and administration of printing systems.
- Initial installation, configuration and testing of an email handling system based on Postfix, Courier and Maildrop software.
- General End User support on RedHat 7.x, 8.x, MacOS X 10.x, all Solaris versions, Irix 5.x 6.x and Hardware problems.

**Systems Administrator/Software Engineer,**

May 1999- August 2001

CERIAS, Purdue University.

- Summary of achievements:
  - Developed and maintained at CERIAS (Purdue University) the tools and techniques for allowing a nearly completely-automated Unix system administration environment.
  - Software development (details below):
    - \* Automated tool for adding and removing users on an NIS+/NFS environment, integrated with all the local subsystems, and satisfying all the local needs (programmed in Perl).
    - \* Automated tool to look for security concerns in log files, as well as automatically processing the email received by the root account on all the machines. Created a tool to debug the results and send all the concerned people in a friendly and brief manner the results from the security log information (programmed in AWK).
    - \* Tool for automatically performing configuration of new clients to integrate them with the specific local environment (programmed in Korn shell and AWK).
    - \* Tool for automatically performing arbitrary Unix system administration commands on all the local clients and servers, on a secure manner using Secure Shell (programmed in Korn shell).
    - \* Tool for automatically monitoring disk space usage, load average and other operating conditions on all the local machines, and for producing reports when certain thresholds or conditions were detected (programmed in Korn shell).
- Essential tasks:
  - Adding and removing users on Solaris 2.7 and 2.8 servers.
    - \* Using tools from the system (Solstice, Admintool, Adduser).
    - \* Creating an automated tool using Perl to satisfy local needs.
  - Adding and removing hardware from Ultra SPARC machines.
  - Configuring and installing new software for Solaris 2.7 and 2.8 servers and clients.

- \* Freeware (including making small modifications to the software, mostly written in C, to make it compile and operate in the local environment).
  - \* Licensed.
- Monitoring main servers.
  - \* Created an automated tool to check every short period of time for hard disk space.
  - \* Checking for load average in the principal servers.
  - \* Checking log files to assure that the systems are in good operating conditions.
- Performing backups
  - \* Providing assistance on cleaning tapes drives and creating new scripts to automate back-ups.
  - \* Installing tools to support backups, SAN management.
- User technical support and troubleshooting.
- 24-hour on-call support for emergencies related to the computer systems at CERIAS.
- Auditing Security
  - Configuring and installing several security tools (Tripwire, Tiger, SATAN, etc.)
  - Installing and configuring an automated tool to look for security concerns on log files. Creating a tool to debug the results and send all the concerned people in a friendly and brief manner the results from the security log information.
  - Keep informed on security vulnerabilities by checking mailing lists every day and read other security related sources.
  - Installing patches and software updates for Solaris machines.
- Administration of Naming and File Services
  - Providing support and assisted in installation and configuration of an NIS+/NFS environment.
  - Administering a Principal NIS+ Server and a Replica NIS+ Server.
    - \* Creating credentials for new clients (machines and users).
    - \* Creating an automated tool for adding and removing users, integrated with all local subsystems, including Email forwarding, printing, and storage of removed accounts.
    - \* Troubleshooting problems from NIS+ tables.
  - Administering several NFS servers and clients.
  - Administering the DNS main server and its slave.
  - Administering the FNS main server.
  - Automating Naming and File services using awk, Perl, and ksh.
- Programming other automated administration duties using awk, Perl and ksh.
- Maintaining an automated request tool called wreq.
  - Installation and configuration of wreq for CERIAS/Purdue University.
  - Troubleshooting of problems related to this automated request system.
- Installing and configuring the operating systems and new software for Linux machines (Web Server for CERIAS, and miscellaneous machines for research purposes).
- Installing and configuring the operating system and new software for OpenBSD machines.

- Installation and configuration of a VPN from a dial-in connection from MacOS 8.x to an OpenBSD machine.
- Installation and support of a Windows 2000 server
- Support to non-technical users of Windows 2000 and NT.

**Systems Administrator (Part Time),** March 1999–August 1999  
Software Area, Computer Science's Department  
Purdue University.

- Installing and compiling software for different architectures and operating systems.
- Fixing source code in free software to adjust for the Computer Science's software infrastructure.

**Systems Administrator,** June 1993–May 1997  
National Autonomous University of Mexico (UNAM).

- Administered and provided support for several Unix workstations.
- Monitored the performance for the Network File System (NFS) and Network Information System (NIS+) in the Visualization Laboratory of the UNAM.
- Advanced programming of automated computer tasks.
- Programming of Network Monitoring tools for Unix machines.
- Programming in HTML and Perl to create web pages.
- Configuring and maintaining a List Server (using Listproc).
- Configuring and maintaining a FTP Server.
- Configuring and installing security tools.

**Voluntary Assistance,** May 1998–August 1998  
CERIAS, Purdue University.

- Programming in Perl the basic structure of filters for the AAFID project.
- Programming in Perl agents for an Intrusion Detection System project.

**Systems Administration Experience with:**

- Unix: SunOs 4.X; Solaris 2.x, 7, 8, 9; Irix 5.x, 6.x; Linux; OpenBSD 2.x; MacOS X 10.1.x, 10.2.x.
- Linux distributions: SuSe, Mandrake, RedHat, Debian.
- Other: MacOS 8.6-9.0; Windows 2000, NT, 95, 98.

**Programming language experience with:**

- Perl
- Korn shell (ksh) and Bourne shell (sh)
- AWK
- C

**Other Experience**

**Instructor.** August 1999–January 2000

Foreign Languages Department, Purdue University.

- Taught intermediate Spanish language class (SPAN201) to two groups of approximately 50 students each.

**Instructor.** September 1994–April 1997

National Autonomous University of Mexico (UNAM).

- Taught Computer Information Systems courses.
- Assisted and motivated students in improving their knowledge in Computer Science.
- Coordinated projects in Management.
- Assisted co-workers in teaching.

**Voluntary Assistance,** September 1991–August 1993

National Autonomous University of Mexico (UNAM).

- Assisted students to improve their skills in Spanish Literature and Mathematics.

**Education**

**Bachelor of Actuarial Science.**

September 1996.

National Autonomous University of Mexico (UNAM), Mexico City.

GPA: 9.67/10.0.

**Bachelor's Thesis** September 1996.

*A Probabilistic Study in a Hybrid Computer System, including its Monitoring and its Correction.*

The aim of this thesis was to examine a hybrid computer system and propose a mathematical model to correct its failures and to improve its performance.

**Zertifikat Deutsch** June 2004

*European Language Certificates, Goethe-Institut*

EB Zurich.

**German classes**

Intensive course (6 daily 45-minute lessons in the course of 4 weeks).

October–November 2001.

Inlingua, Zürich.

Regular course (6 weekly lessons).

November 2001 to date.

Inlingua, Zürich.

Bellingua, Zürich.

**Courses in English Grammar and Composition**

August 1997–December 1998

ESL School, Purdue University.

**Courses taken at Purdue University**

Real Analysis (MA504), Elementary Probability (STAT516), Introduction to Probability (MA519),

English 101I, Reading Speed (GS 209), Vocabulary Excellence (GS 490B).