

# STEPHANE JORDI, M.Sc.

PRÉ-DES-ESSERTS 20  
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## GOALS

Work in a high tech, research driven, challenging environment.  
Specialized and interested in "data crunching" and data oriented processing/innovation.

## EDUCATION

**Geophysics, Ph.D.** expected 2010  
**American University to be selected, USA**  
Currently investigating submitting a thesis to a US University, in Volcanology option.

**Geophysics, Master of Science** 1993  
**University of Geneva, Switzerland**  
Volcanology option.  
Data Acquisition and Analysis methods and related software solution development.  
Specialized in data acquisition, data processing, data analyzing and data presentation.  
Master of Science developed and applied to the surveillance of a volcano complex set in Guatemala.

**Earth Sciences, Bachelor of Science** 1990  
**University of Geneva, Switzerland**  
Main Science education, including teaching computing for Geologists.

**Baccalauréat Scientifique Français** 1985  
**French Scientific Baccalaureat, Institut Valcreuse, Lausanne, Switzerland**

**Baccalauréat Technique** 1984  
**Technical Baccalaureat, Gymnase de Chamblandes, Lausanne, Switzerland**

## EXPERIENCE

**System Engineer** June 2008 - Present  
**City of Geneva, Switzerland**  
Linux systems and servers (administration, setup and maintenance, security strategies).  
Lotus Notes Domino servers (administration, setup and maintenance, deployment).  
Novell networks (administration, ConsoleOne, iManager and OES migration).  
MySQL servers (administration, setup, maintenance, security).

**Senior Software Developer and Architect** June 1999 – June 2008  
**City of Geneva, Switzerland**  
In charge of analyzing requirements, software design, development, and documentation.  
In charge of Geographical Information System solutions and integrations.  
Project Manager.  
Student supervision.

### Software Skills

Adobe  
Dreamweaver  
Adobe Photoshop  
Act!  
Canvas  
Eclipse IDE  
MS Office Suite  
MS Project  
PaperPort  
Video Edition  
WordPerfect Office

### Development Skills

Assembler  
Basic  
C  
C++  
Clipper  
ColdFusion  
Delphi  
Forth  
Fortran  
Lisp  
ObjectPAL  
PHP  
Perl  
Pascal  
PostScript  
Prolog  
VBA Office

### Technology

AJAX  
CSS  
HTML/XHTML  
JavaScript  
Shell scripting  
SQL  
XML  
  
MySQL  
  
Linux/UNIX  
Windows Vista/XP  
Macintosh  
Novell Netware  
Apache/Tomcat

## Senior Software Architect for Data Analysis

June 2000 - Present

TiltSoft, Switzerland

### Certifications

Novell SUSE Linux  
Rational Rose UML

Creation of my own company, specialized in computerized volcano monitoring techniques and solutions, TiltSoft, in June 2000.

The competence offered is broadly covering scientific requirements, budget estimations, compliant software solution developments, data acquisition, data processing, data analysis, data interpretation and data representation (graphically).

Cooperates closely with:

- PHIVOLCS, Philippines
- US Geological Survey, USA
- Data Environment, France
- University of Grenoble, France
- Merapi Volcano Observatory, Indonesia
- Delairco Ltd., Australia
- Mitsubishi, Japan
- Japan Weather Association, Japan

See [www.tiltsoft.com](http://www.tiltsoft.com) for more information.

## Senior Software Developer

January – May 1999

MMD, Lausanne, Switzerland

Software development engineer in the multimedia field and web information distribution.

Tools used were ColdFusion and ASP.

## Senior Software Developer and Architect

1998

Kinematics Inc., Pasadena, California, USA

Software development engineer in Nuclear Power Plant seismic monitoring.

Development of a fully integrated surveillance and analysis system to trigger alarms in case of earthquakes.

Also in charge of the Novell network.

## Senior Software Developer and Architect

1994-1997

Kinematics SA., Prévèrenge, Switzerland

Software development engineer in Nuclear Power Plant seismic monitoring.

Development of a fully integrated surveillance and analysis system to trigger alarms in case of earthquakes.

## Software Developer

1994-1995

University of Geneva, Switzerland

Creation of an automatic data acquisition system at the Dpt of Physiology, on a Macintosh-based platform to control a robot that prepares neuronal receptors for nicotinic reactions, injects drugs into them and then acquires physiological data. A built-in data graphical processing tool has also been developed (1994-1995).

## **Invited Scientist**

August – October 1994

**Cascades Volcano Observatory - USGS, Vancouver, WA, USA**

Creation of an RSAM seismic data processing Windows application.  
Participation in emergency volcanic disasters seismic equipment setup (for Rabaul volcano, Papua-New Guinea).

## **Miscellaneous**

1980-1994

Research Assistant to the University of Geneva.  
Software Development for a database used by the European Society for Engineers.  
Software Development for the Swiss Geophysical Commission.  
In charge of the computer center for two departments at the Swiss Federal Institute of Technology, in Lausanne (EPFL), Switzerland.  
Junior Developer for the main computer center at the Swiss Federal Institute of Technology, in Lausanne (EPFL), Switzerland.

Platforms involved: Cyber, VAX, Cray, PC (MS-DOC & Windows), NeXT and SUN workstations.

## **MISC. ACTIVITIES**

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Member of the Swiss Disaster Relief Unit since 1993. Specialization in seismic and volcanic risks.

Member of the Directorial Comity for the Territorial Information of the City of Geneva (SITV), which gathers all competencies in GIS (Geographical Information Systems).

Member of the Society of Volcanology of Geneva, Switzerland.

Member of the American Geophysical Union since 1991.

Successful completion of the USGS' "Helicopter & Airplane Safety" required to fly with USGS teams.

## PUBLICATIONS/PRESENTATIONS

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Jordi, S., Kessler, M., et al., 1990, *Le Volcanisme de la Taupo Volcanic Zone (TVZ) - Nouvelle Zélande*, Geneva, Switzerland, 17pp.

Jordi, S., 1991, *L'évolution du Vésuve depuis 1850*, Geneva, Switzerland.

Jordi, S., 1993, *Seismo-volcanic Acquisition and Analysis of the Fuego-Acatenango Complex (Guatemala): An Automated Approach*, University of Geneva, Master of Science Collection, Switzerland.

Wagner, J.-J., Gong, G., Sartori, M. & Jordi, S., 1999, *A catalogue of physical properties of rocks from Swiss Alps and nearby areas.*, in *Matériaux pour la Géologie de la Suisse, série géophysique*, 32, 80pp..

Jordi, S., 2001, *Volcano Monitoring*, in *Dr. Dobb's Journal*, 322, 64-70, USA.

Jordi, S., 2004, *Geographical Information Systems as a Help to Manage a City like Geneva*, Dubai, UAE Conference.

Jordi, S., 2008, *Computerized Volcano Monitoring, Prevention and Prediction*, Webster University, 8h class.

### **Invited Scientific Lecturer**

April 2008

**Webster University**, Geneva, Switzerland

Invited lecturer at the Webster University at the Geneva campus, Switzerland, for a 2 week class on applied computing (computerized volcano monitoring).

Taught in English over four two-hour classes.

### **Speaker, Senior I/T Specialist**

May 2004

**Dubai**, United Arab Emirates

Representing the City of Geneva. Introduced "Geographical Information Systems as a Help to Manage a City Like Geneva" to the city of Dubai and invited sister cities attending the conference.

## PERSONAL INFORMATION

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Date of birth: Nov 1, 1964  
Citizenship: Swiss  
Status: Single  
Languages: French (mother tongue)  
English (written, spoken, fluent)  
German & Spanish (good basis)  
Japanese (currently learning)  
Greek (currently learning)

## WORLDWIDE SCIENTIFIC MISSIONS

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### Guatemala

Scientific support mission for the Swiss Disaster Relief Unit (SDRU) in Guatemala in Nov. 1996. Installation of a new computer network and upgrade of the volcano-seismic analysis tools at the Volcanology Department of Guatemala City.

Scientific support mission for the SDRU in Nicaragua (Nov. 1996). Teaching at a GIS meeting held in Managua for the volcanology departments and the civil defense units of both Nicaragua and Guatemala. Theme: advanced managing volcanic risks (Montserrat Volcano, West Indies) with the help of GIS.

Scientific support mission for the SDRU in Guatemala (Sept. 1995).

Scientific support mission for the SDRU in Guatemala (Apr. 1995). Seismic data acquisition system update. Support of a Swiss National TV team reporting on volcanic hazards and risks monitoring (scientific magazine "Telescope").

Scientific support mission for the SDRU in Guatemala (Nov. 1994). Seismic data acquisition update.

Scientific support mission for the SDRU in Guatemala (Oct. 1994). Installation of a new computer-based seismic data acquisition.

Scientific support mission for the SDRU in Guatemala (3 weeks) in November 1993 to upgrade software and hardware at the volcanological observatory. Attending an IDNDR international conference on volcanic risks of the Santa Marià volcano.

Scientific support mission for the SDRU in Guatemala (March-April 1993) to set up and install a volcanic-seismic data acquisition and processing network for the Fuego-Acatenango and Pacaya volcanoes. Creation of a seismic data processing and graphical information presentation application (MS-Dos platform).

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### Nicaragua

Scientific support mission for the SDRU in Nicaragua (Nov. 1996). Teaching at a GIS meeting held in Managua for the volcanology departments and the civil defense units of both Nicaragua and Guatemala. Theme: advanced managing volcanic risks (Montserrat Volcano, West Indies) with the help of GIS.

Emergency support for Cerro Negro eruption in Nicaragua, for two weeks, in Nov-Dec 1995.

Scientific support mission for the SDRU in Nicaragua (Sept. 1995). Teaching at a GIS meeting held in Managua for the volcanology departments and the civil defense units of both Nicaragua and Guatemala. Theme: managing volcanic risks at Concepcion volcano (Ometepe Island, Nicaragua) with the help of GIS.

Scientific support mission for the SDRU in Managua, Nicaragua (Apr. 1995). Installation of a RSAM-based seismic system at INETER.

Scientific support mission for the SDRU in Managua, Nicaragua (Nov. 1994). Fine tuning of all seismic data acquisition parameters. Teaching of seismic data processing at INETER.

Scientific support mission for the SDRU in Nicaragua (2 weeks in September 1994) to install a complete volcanic-seismic data acquisition and processing system (same as the one in Guatemala) at the INETER (National Institute of Territorial Studies).

USA

Mission to USGS, November 2004. Finalization of thermal monitoring and charting tool specifications. CVO, Vancouver, WA and AVO, Anchorage, Alaska.  
Instruments added to the St Helens' dome.

Elaboration of the specifications for a personalized version of the TiltSoft software for the USGS, to be used worldwide in the different observatories where they operate. Sept, Oct. and Nov. 2003 at the Cascades Volcano Observatory, Vancouver, WA, USA.

Support to a Swiss TV team in Pasadena, CA, to help them direct a commentary on earthquakes. Directly participating in the show. 1998.

Assistance support for Cascades Volcano Observatory (USGS) at Augustine volcano, Alaska, Aug. 1996, for GPS deformation system installation and programming.

Indonesia and France

Scientific mission to the Indonesian Volcano Observatory in the Kelut Volcano in Indonesia, and support to the Institut of Earth Physics from Grenoble (France) and the University of Chambéry (France).

Adaptation of my Tiltmeters application (running at the Merapi volcano), September 1998.  
That particular software version is a customized technological solution covering rain gauges, RSAM, SSAM, seismic data, wind, lahars, gaz and deformation (GPS and tiltmeters).  
The application is now multilingual.

Philippines, Australia and Japan

Complete elaboration of the data interpretation and charting software for the PHIVOLCS project. Training of the team in Manilla for the hardware installation, volcano monitoring methods, as well as the software use. Nov 2002 and Jan 2003.

Scientific mission in Manila, Philippines, in the frame of a volcano monitoring project with PHIVOLCS about volcanic deformation measurement. The project was financed by the Japanese Humanitarian Aid Fund.

Contracted by an Australian company. Definitions of the needs and methodology to be used. July 2002.

