Frédéric Moser

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Career objective

To work for an innovative, environmentally conscious organizations and contributing to its success by providing my scientific and technical skills.

Work experience

GIS consultant   **11/2014 – today**
World Health Organisation (60%-100%)   *Geneva*
Development of a standalone GIS application for physical accessibility to health care and population coverage modeling : `accessmod 5.0`.

Research assistant   **03/2014 – 06/2014**
University of Geneva (50%-100%)   *Geneva*
Application development and data processing for the biodiversity part of the ACQWA project[1] in Valais, Switzerland. Intensive use of `R`, `Shiny (R)`, `Caret (R)`, `awk`, `SQLite` and `Grass GIS`.

- ⋆ Text file processing (240 GB), creation and optimization of a relational database;
- ⋆ Spatial vector and raster processing. Creation of a spatial database with multiple environmental predictors;
- ⋆ Calculation of 40 hourly and monthly hydrologic indices for 25'000 segments of river, for 60 years;
- ⋆ Development of an interactive web application[2] to create, fit, analyse and share a potentially large ensemble of predictive models and predictions;
- ⋆ Creating a robust custom queue system to distribute any number of tasks on a remote calculation server, allowing real time concurrent access to the application and high performance parallel computing.

Research assistant   **08/2013–12/2013**
University of Geneva (50%)   *Geneva*
Scripts and functions development in R, contribution to the introductory course of geomatics.

- ⋆ Adding functions, optimization works for a web application[3] made during my Master thesis to spatially explore a set of species distribution predictive models;
- ⋆ Convertion of a set of `ArcGIS` workshops to an open source GIS solution.

Education

Master of Environmental Sciences   **2010–2013**
University of Geneva   *Genève*
Thesis : *Impact of climatic changes on alpine biodiversity: species distribution modelling for aquatic insect in Rhone watershed in Valais.*
Direction : Dr E. Castella & Prof. Dr A. Lehmann.

Bachelor of Arts in Geography   **2007–2010**
University of Geneva   *Genève*
Thesis : *Shared space concept as a solution to reconsider street design at a human scale*
Direction : Dr B. Levy.

Computer skills

Indicative assessment[4] :

GIS

●●●●○	Grass GIS
●●●○○	ArcGIS
●●●○○	QGIS

Databases

●●●●○	SQLite
●●●○○	Spatialite
●●○○○	PostGIS

Scripting

●●●●○	R
●●●●○	LaTeX
●●●○○	HTML
●●○○○	JavaScript
●●○○○	Shell scripts
●●○○○	CSS
●●○○○	Python

Libraries

●●●●○	Shiny (R)
●●●○○	Caret (R)
●●●○○	Leaflet (js)
●●○○○	GDAL

OS

●●●●○	OS X
●●●●○	Ubuntu server
●○○○○	Windows

CAD

●●●●○	Shark FX
●●○○○	Autocad

Others

●●●●○	Stella
●●●○○	SPSS
●●○○○	git

Languages

- ⋆ **Français** : langue maternelle ;
- ⋆ **English** : Proficient in technical english ;
- ⋆ **Deutch** : Basiswissen.

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[1] ACQWA (*Assessing Climate Impacts on the Quantity and quality of WAter*). http://www.acqwa.ch/
[2] `lebamod` (*Laboratoire d'écologie aquatique: modélisation de distribution d'espèces*). http://sdm.unige.ch/
[3] `hexdim` (*Hexagonal grid distribution map*). http://sdm.unige.ch
[4] Scale: ●○○○○= basic,   ●●●●●= advanced

Previous education

Diploma of watchmaker (rhabilleur) **2000–2001**
School of watchmaking *Petit-Lancy*
Award : Fondation Hans-Wilsdorf prize

Diploma of watchmaker **1997–2000**
Patek Philippe & School of watchmaking *Plan-les-Ouates*

Other work experiences

Computer technician **09/2009–02/2014**
MacWorks SàRL (20-50%) *Geneva*
Computer and smartphone repair; micro soldering; data recovery.

Watchmaker **01/2008–04/2010**
Andersen Genève SA (10-80%) *Geneva*
Watch complications designer.

Bicycle messenger **12/2005–11/2008**
dvdmania.ch (10-20%) *Geneva*
Express delivery.

Watchmaker **11/2001–09/2006**
Self-employed (80-100%) *Geneva*
Design of mechanical parts, unique watches manufacturing and repairing.

Service civil **06/2006–07/2006**
Genève Roule (100%) *Geneva*
Database development on FileMaker 9.0 : payroll management for external employees; Customer reception and staff management.

Service civil **05/2005–08/2005**
Institut d'architecture et d'urbanisme de l'Université de Genève (100%) *Carouge*
Archiving historic plans and slides in an image bank; Development of an interactive tutorial to assist digitizing process.

Bicycle messenger **01/2002–12/2003**
Krick Cyclomessagerie (40%) *Geneva*
Express delivery.

Extracurricular activities

Secretary **04/2005–06/2012**
Association Roue Libre *Geneva*
Committee member from 2005 to 2012. Secretary from 2006 to 2009.
Various activities within an association of bicycle couriers and urban cyclists: staff manager of the swiss bicycle messenger championship 2005 (staff = 100+); software/hardware development for bike races timing; administration of www.rouelibre.org; in charge of various communications projects.