



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

Developer 06/2015 – today
University of Geneva *Geneva*

Main developer of the project **map-x** : interactive mapping and analysis platform for extractive industries in fragile states.

Developer 11/2014 – today
Freelance *Geneva*

Main developer of the project **AccessMod 5** : modélisation of accessibility to Health Facilities for the World Health Organisation.

Research assistant 03/2014 – 06/2014
University of Geneva *Geneva*

Application development and data processing for the biodiversity part of the ACQWA project¹ in Valais, Switzerland. Intensive use of R, Shiny (R), Caret (R), awk, SQLite and Grass GIS.

- ★ Large spatial database processing (>2TB)
- ★ Statistics on hourly flow for 60 years and 3000 Km of river
- ★ Development of an interactive web application² using HPC in backend to create, fit, analyse and share a potentially large ensemble of predictive models and predictions;

Research assistant 08/2013–12/2013
University of Geneva *Geneva*

Scripts and functions development in R, contribution to the introductory course of geomatics.

- ★ Development of a set of functions and scripts³ to automate statistical predictions of discharge for multiple hydrological stations, from simulated rainfall and glacial mass balance data for the 1951 to 2050 period;
- ★ Adding functions, optimization works for a web application⁴ made during my Master thesis to spatially explore a set of species distribution predictive models;
- ★ Conversion 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 : D^r E. Castella & Prof. D^r A. Lehmann.

Bachelor of Arts in Geography 2007–2010
University of Geneva *Genève*

Thesis : *Shared space concept as a solution to reconsider street design on a human scale*

Direction : D^r B. Levy.

Computer skills

Indicative assessment⁵ :

GIS

..... Grass GIS
..... QGIS
..... ArcGIS

Databases

..... Postgres
..... SQLite

Languages

..... R
..... L^AT_EX
..... HTML
..... JavaScript
..... CSS
..... Shell scripts

Libraries

..... Shiny (R)
..... PostGIS (Postgres)
..... Mapbox GL (js)
..... Caret (R)
..... GDAL

OS

..... MacOS
..... Ubuntu server

CAD

..... Shark FX
..... Autocad

Others

..... Stella
..... git

Languages

- ★ **Français** : Langue maternelle ;
- ★ **English** : Proficient in technical english ;
- ★ **Deutch** : Basiswissen.

¹ACQWA (Assessing Climate Impacts on the Quantity and quality of Water). <http://www.acqwa.ch/>

²lebamod (Laboratoire d'écologie aquatique: modélisation de distribution d'espèces). <http://sdm.unige.ch/>

³smodiv (Stat. pred. modeling of discharge in Valais).

⁴hexdim (Hexagonal grid distribution map). <http://sdm.unige.ch>

⁵Scale: = 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 *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 *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.