# 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*

Full stack developer of `MapX`, an open source web application for interactive mapping
https://app.mapx.org.

**Developer**                                    **11/2014 – today**
*University of Geneva*                                    *Geneva*

Full stack developer of `AccessMod 5`, a multiplatform desktop application for physical accessibility modelling
https://www.accessmod.org/.

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

★ Large spatial database processing (>2TB)

★ Statistics on hourly flow for 60 years and 3000 Km of river

★ Development of an interactive web application[2] 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 scripts[3] 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 application[4] 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 : 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 assessment[5] :

**GIS**

- ●●●●○  Grass GIS
- ●●●●○  PostGIS
- ●●●○○  QGIS
- ●●○○○  ArcGIS

**Databases**

- ●●●○○  Postgres
- ●●○○○  SQLite

**Languages**

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

**Libraries**

- ●●●●○  Shiny (R)
- ●●●○○  Mapbox GL (js)
- ●●●○○  Webpack (js)
- ●●●○○  GDAL

**OS**

- ●●●●○  MacOS
- ●●●○○  Ubuntu server

**CAD**

- ●●●●○  Shark FX
- ●●○○○  Autocad

**Others**

- ●●●●○  Stella
- ●●●○○  git
- ●●●○○  Docker

## 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] smodiv (*Stat. pred. modeling of discharge in Valais*).
[4] hexdim (*Hexagonal grid distribution map*). http://sdm.unige.ch
[5] Scale:  ●○○○○ = basic,  ●●●●● = advanced

# Previous education

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

**Diploma of watchmaker *praticien***      **1997–2000**
*Patek Philippe Geneva*
*& 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 – Today**
*Association Roue Libre*      *Geneva*
Secretary from 2006 to 2018.
Various activities within an association of bicycle messengers 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.