



# Sergio Peignier

## Curriculum Vitae

### Formation

- 2015 **Advanced Lecture Course on Computational Systems Biology**, *COMPSYSBIO spring school*, Aussois, France.
- 2015–2016 **Second year PhD in Computer Sciences**, *École doctorale Infomath, INSA, INRIA - LIRIS*, Lyon, France.
- 2014–2015 **First year PhD in Computer Sciences**, *École doctorale Infomath, INSA, INRIA - LIRIS*, Lyon, France.
- 2013–2014 **Engineer degree in Bioinformatics and Modeling**, *Institut National de Sciences Appliquées (INSA)*, Lyon, France, Bioinformatics and Modeling.  
Jury's congratulations
- 2013–2014 **Master in Fundamental Computer Sciences**, *École Normale Supérieure*, Lyon, France, Complexe systems specialty.
- 2012 **Seminar of formal logic and history of formal logic**, *Universidad Catolica Boliviana La Paz*, La Paz, Bolivia.  
Certificate of attendance
- 2008 **First semester of engineer in Telecommunication**, *Universidad Franz Tamayo*, La Paz, Bolivia.  
Waiting for courses at INSA de Lyon.
- 2008 **Bachelor degree**, *Lycée Franco-Bolivien Alcides d'Orbigny*, La Paz, Bolivie, specialty physics.  
Jury's congratulations

### Work Experience

#### Lectures

- 2014–2016 **Lecture of modeling of biological systems**, *modeling and MATLAB*, INSA, Lyon.  
Third year department of Bioinformatics and Modeling (BIM) (6 hours)
- 2014–2016 **Lectures of Computer Sciences**, *Data Bases and SQL*, INSA, Lyon.  
Third year department of Bioinformatics and Modeling (BIM) (26 heures)
- 2014–2016 **Lectures of programming**, *Python*, INSA, Lyon.  
Third year department of Bioinformatics and Modeling (BIM) (24 heures)

2012–2014 **Tutoring sessions**, *Passerelle program*, INSA, Lyon.  
Academic support in mathematics and programming for first and second year students at INSA Lyon.

### Internship

- 2016 **Collaboration visit of 8 weeks**, *Faculty of Sciences Universidad Mayor de San Andrés (UMSA)*, La Paz, Collaboration work with Professeur Heriberto Castañeta Maroni.
- Application of Chameleoclust, a subspace clustering algorithm developed during my PhD, to analyse chemical compounds described in a high dimensional space of physical and chemical descriptors.
- 2014 **6 months internship**, *"Artificial Evolution and Computational Biology" (BEAGLE) team of the french "Institut National de Recherche en Informatique et Automatique" (INRIA) and the laboratory "Laboratoire d'InfoRmatique en Image et Systèmes d'information" (LIRIS)*, Lyon, Supervised by Guillaume Beslon and Christophe Rigotti.
- Development of a in-silico evolutionary model to study some features of evolution of evolution.
  - Development of data mining tasks that take advantage of these features.
- 2013 **Stage de 4 semaines**, *Faculty of Sciences Universidad Mayor de San Andrés (UMSA)*, La Paz, Supervised by Heriberto Castañeta.
- Implémentation of a Q-SAR software based on neural networks and genetic algorithms.
- 2013 **4 months internship**, *"Genetic of Intra-Species Variations" team in the laboratory "Laboratoire de Biologie Moléculaire de la Cellule" (LBMC) ENS*, Lyon, Supervised by Gael Yvert.
- Development of a software to detect genetic regions involved in selective advantage of yeast populations under selection pressure.
  - Analyse of data for Lesaffre company.
- 2012 **5 weeks internship**, *Faculty of Sciences Universidad Mayor de San Andrés (UMSA)*, La Paz, Supervised by Heriberto Castañeta.
- Development of an algorithm for RNA secondary structure prediction based on neural networks.
  - Short paper published in the "Bolivian Journal of Chemistry".

---

### Computer skills

Basic knowledge Hardware, HTML, PASCAL

Avancées Linux, Microsoft Windows, Internet, PYTHON, C, C++, R, MYSQL,SQLITE, MATLAB, JAVA, L<sup>A</sup>T<sub>E</sub>X

---

### Publications

Accepted paper Peignier, S., and Castañeta, H. (2015). Analysis of subspace clustering of molecules using Chameleoclust, an evolutionary algorithm. *Revista Boliviana de Química*, 32(5), 110-120.

---

### Conférences

Accepted paper Abernot, J., Beslon, G., Peignier, S. and Rigotti, C.: A commensal architecture for evolving living instruments. In *Conference on Computer Simulation of Musical Creativity*

Long abstract accepted Peignier, S., Rigotti, C., and Beslon, G. Subspace Clustering for all Seasons. In *EvoEvo Workshop (satellite workshop of ECAL 2015)*

Long paper accepted Peignier, S., Rigotti, C., and Beslon, G. Subspace clustering using evolvable genome structure. In *Proceedings of the 2015 on Genetic and Evolutionary Computation Conference* (pp. 575-582). ACM.

## Séminaires

- Présentation Événement BeyondLab maths-info : EvoEvo (Evolution of Evolution)(2016)  
Séminaire Équipe DM2L: Subspace Clustering Using Evolvable Genome Structure (2016)  
Présentation Journée des Thèses du LIRIS: Subspace Clustering Using Evolvable Genome Structure  
d'un poster (2016)

## Awards

- 2015 **Best Paper Award**, *Evolutionary Machine Learning*, International ACM conference on Genetic and Evolutionary Computation Conference, Madrid.  
GECCO-2015

## Language skills

English	<b>TOEIC</b>	<i>Obtained in 2013</i>
Portuguese	<b>B1 level</b>	<i>Obtained in 2014</i>
Italian	<b>B1 level</b>	<i>Obtained in 2013</i>
French	<b>Mother tongue</b>	<i>Bilingual</i>
Spanish	<b>Mother tongue</b>	<i>Bilingual</i>

## Divers

- **Sciences and Art:** Creation and development of the *Informatique Sensorielle* project. Participation in the 4th RADART meeting (2014).
- **Musique :** Regular practice of guitar and transverse flute. Validation of the first cycle in in the National Music School (Conservatorio Plurinacional de Musica) La Paz Bolivia.
- **Dessin:** Regular practice.
- **Sport:** Regular practice of climbing and running (participation in different runnings and half marathon runnings).
- **Philosophy :** Participation in different lecture of philosophy and epistemology as auditor.