Amaury Hazan

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Age: 25 years old.
Nationality: French.

ACADEMIC RECORD

2004- Candidate for the PhD in Computer Science and Digital Communication of the Universitary Institute of Audiovisual (**IUA, Pompeu Fabra University**). My specialization is Machine Learning. I have been involved in the following projects: ProMusic (Spanish R&D Program TIC 2003-07776-C02), EmCAP (EU-FP6-IST-013123), and Semantic HIFI (EU-FP6-IST-507913)

2000-2004 Msc. degree obtained at the **Ecole Française d'Electronique et d'Informatique (EFREI, Villejuif)**, a leading French IT engineering and management school . URL: *http://www.efrei.fr*

1998-2000 Engineering entrance examination preparatory PSI course option Physics and Engineering at **Lycée Jacques Decours** (Paris X)

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1998 High school diploma obtained at **Lycée Louis Le Grand** (Paris V).

WORK EXPERIENCE

December 2005 to date Partner of **Barcelona Music and Technologies S.A** (www.bmat.com). BMAT is a spin-off of the Music Technology Group.

October 2004 to date Teaching assistant in C Programming (Pompeu Fabra University)

March to September 2004 Machine Learning research position at **Music Technology Group**, IUA, Barcelona. I am involved in the ProMusic project to induce expressive transformation models from saxophone performances using machine learning techniques. Design of an expressive transformation tool.

July to December 2004 Master thesis at the **Facultat d'Informática de Barcelona** (UPC). A drum sequencer with beat boxing oral interface was designed in C++ using CLAM. It performs onset detection, descriptors selection and tree-based classification.

April to June 2002 3-month internship at **Publison** company (Bagnolet, France)**.** Implementation of a VST plug-in host into Totalstation mix console.

SKILLS

Computer

Programming: C, C++, JAVA, Python, OO Programming. HTML, PHP, SQL, XML. Prolog.

Machine Learning: Supervised/Unsupervised Machine Learning, Propositional and Relational Data-mining (Inductive Logic Programming). Evolutionary Computation (GA, GP, STGP). Artificial Neural Networks for sequence learning (FNN, RNN, LSTM)
OS: Windows 2000/XP, Linux ,Mac OSX.

Signal Processing: MATLAB, CLAM, Essentia.

LANGUAGE

French: Native speaker. **English**: Fluent. **Spanish**: Fluent. **Catalan**: Basics.

SELECTED PUBLICATIONS

Journals

Discovering Expressive Transformation Rules from Saxophone Jazz Performances (2005)
Ramirez, R., Hazan, A., Gómez, E., Maestre, E., Serra, X.
Journal of New Music Research 34:4, 349-330.

A Tool for Explaining and Generating Expressive Music Performance (In press)
Ramirez, R., Hazan, H. International Journal of Artificial Intelligence Tools.

Book Chapters

Evolutionary Computing for Expressive Music Performance. (In press)
Ramirez, R., Hazan, A., Mariner, J., Maestre, E., Serra, X.
In: The Art of Artificial Evolution, Springer Natural Computing Series
Machado and Romero Editors.

A Data Mining Approach to Expressive Music Performance Modeling (2006)
Ramirez, R., Hazan, A., Gómez, E., Maestre, E., Serra, X.
In: Multimedia Data Mining and Knowledge Discovery, Springer LNAI series.
Petrushin and Khan Editors.

Conferences

Modelling expressive performance using consistent evolutionary regression trees (2006)
Hazan, A. Ramirez, R.
Proceedings of the (EC)2AI workshop, part of the ECCAI conference (Accepted)
Riva del Garda, Italy.

Modelling Expressive Performance: A Regression Tree Approach Based on Strongly Typed Genetic Programming (2006)
Hazan, A. Ramirez, R. Maestre, E. Perez, A. Pertusa, A.
Proceedings of 4th European Workshop on Evolutionary Music and Art (LNCS 3907).
Budapest, Hungary.

Understanding expressive music performance using genetic algorithms (2005)
Ramirez, R., Hazan, A.
Proceedings of 3rd European Workshop on Evolutionary Music and Art (LNCS 3449).
Lausanne, Switzerland

Towards automatic transcription of expressive oral percussive performances (2005)
Hazan, A.
Proceedings of International Conference on Intelligent User Interfaces (IUI 2005)
San Diego, CA, USA

Performing Expressive Rhythms with BillaBoop Voice-driven Drum Generator (2005)
Hazan, A.
Proceedings of the 8th Conference on Digital Audio Effects (DAFX 05).
Madrid, Spain

Rule induction for expressive music performance modeling
Ramirez, R. Hazan, A. (2004).
Proceedings of Advances in Inductive Rule Learning Workshop.
Pisa, Italy