

Nicola Montecchio, Ph. D.

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<http://www.nicolamontecchio.com>

## WORK EXPERIENCE

**Music IR Scientist, The Echo Nest, Somerville, MA, US    Jul 2012 - present**

Research in classification and ranking algorithms for acoustic aspects of music (energy, valence, presence of vocals/acoustic instruments et al.), applied to a catalogue of circa 30 million songs. Development of a large scale parametric acoustic similarity engine. Improvement of other aspects of the system using ad-hoc Bayesian graphical models.

**Visiting Researcher, IRCAM, Paris, FR    Aug 2010 - Jun 2011**

Research and development of real-time audio and gesture alignment algorithms. Involvement in the preparation of artistic productions. Supervisor: Dr. Arshia Cont.

## EDUCATION

**Ph.D., Information Engineering, Apr 2012    University of Padova, IT**

Research topics: real-time alignment of music, gesture data; content-based identification of alternative versions of recordings. Attended with state-funded scholarship. Advisor: Dr. Nicola Orio. List of publications and video demos available on the website.

**M.S., Computer Science (Ingegneria Informatica), Jul 2008    Uni. Padova, IT**

Graduated with highest marks; advisor: Dr. Nicola Orio.

**Conservatory of Venice, IT    Diploma, Piano performance, Feb 2005**

Graduated with highest marks. Teacher: M. Giorgio Agazzi. Winner of several competition awards (Ravenna, Pesaro, Padova, Venice). Performances as soloist with the Padova and Veneto orchestra. Advanced classes with internationally renowned musicians: D. Rivera, H. Shelley, F.-J. Thiollier, S. Perticaroli, L. De Barberiis, Trio di Parma.

## SKILLS

Machine learning, probabilistic algorithms, information retrieval, signal processing.

Extensive programming experience in C/C++, Python, Java; to a lesser degree: Haskell, Matlab, R, Javascript. Github profile: <https://github.com/nicolamontecchio>

Languages: Italian (native), English (full proficiency), French (basic).

Italian nationality, U.S.A. permanent resident.

Boston, January 2014