

Vesa Norilo

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Education and degrees

- 17.6.2016 **D.Mus.**, *music technology*, with merit..
- 19.6.2009 **M.Mus.**, *traditional music*, cello..
- 16.6.2006 **M.Mus.**, *music technology*, thesis grade 5/5..

Professional skills

- Programming **C++**, **Clojure**, **C#**, **Objective C**, **HTML/CSS**, **Python**, **LLVM**, **VST**, **AU**, **Keras**, **Tensorflow**, **Wwise**, **React**, **Cocoa**.
- Software **Visual Studio**, **Xcode**, **Pro Tools**, **Studio One**, **LaTeX**.
- Instruments **Cello**, **wooden flute**, **piano**.
- Audio **Recording**, **mixdown**, **mastering**, **production and live sound**.

Languages

- Finnish **native**.
- English **fluent**.
- Swedish **intermediate**.
- German **basic**.

Current position

- 2017- **Post-doctoral Researcher**, *University of the Arts*.
Project Sprezzatura, funded by the Academy of Finland [SA311535]

Work experience

- 2017 **Yousician Ltd.**, *Software Developer*, **Core Application**.
iOS audio, native code development, Unity performance work, code review.

- 2014-2016 **University of Arts Helsinki**, *Lecturer*, Music Technology.
M.Mus and B.Mus thesis supervision; teaching cello, recording arts and programming. Teaching and developing the curriculum for digital signal processing
- 2014-2015 **Remedy Entertainment Ltd**, *Software Developer*, Quantum Break.
Real-time signal processing for time-warp effects in a major commercial video game.
- 2009-2013 **Sibelius Academy**, *Software Developer*, Pitch Primer & Tempo Primer.
Architect and developer for iPhone applications to aid musical practice.
- 2002-2010 **Academy of Finland**, *Software Developer*, PWGLSynth.
Development of a modular sound synthesizer as an assistant to Research Fellow Mikael Laurson.

Research funding

- 2018 **Maupertuis Program**, *Short term researcher mobility*.
1000€ for mobility expenses to GRAME, Lyon
- 2017–2020 **Academy of Finland**, *Sprezzatura*.
Post-doctoral researcher
- 2015 **Emil Aaltonen Foundation**, *Interfacing Music and Signal Processing*.
4 month grant for a research project at Griffith University, Brisbane, Australia.
- 2014 **Sibelius Academy Foundation**, *Interfacing Music and Signal Processing*.
5400€ for the mobility expenses.
- 2013 **Sibelius Academy Development Centre**, *Visit to CCRMA*.
2500€ for dissemination of doctoral research at Stanford University.
- 2004–2009 **Academy of Finland**, *CLARA*.
Part-time assistant for research fellow Mikael Laurson

Awards, prizes and honours

- 2017 **Emma nomination**, *Hereä: Veden värit*.
The “Finnish Grammy” nomination for the traditional music album of the year
- 2014 **Emma nomination**, *Eva: Ensimmäiset seikkailut*.
The “Finnish Grammy” nomination for the traditional music album of the year

Other academic merits

- 1.12.2018 **Invited speaker**, *Programmable Audio Workshop*, GRAME, Lyon, France.
- 2015- **Reader**, *Computer Music Journal*, MIT Press.
- 2015- **Reader**, *Conference on Sound and Music Computing*.
- 2.11.2015 **Invited speaker**, *Innovative methods for teaching signal processing*, Jean Monnet University, St. Etienne, France.
- 6.5.2011 **Invited speaker**, *Linux Audio Conference*, National University of Ireland, Maynooth, Ireland.

Scientific and societal impact

34 international peer-reviewed publications, of which 4 are journal articles.

Journal articles, first author

- 2015 **Kronos: A Declarative Metaprogramming Language for Digital Signal Processing**, *Computer Music Journal*, MIT Press.

Journal articles, contributing author

- 2009 **An Overview of PWGL, a Visual Programming Environment for Music**, *Computer Music Journal*, MIT Press.
with Laurson, Mikael; Kuuskankare, Mika
- 2008 **Parametric Piano Synthesizer**, *Computer Music Journal*.
with Rauhala, Jukka; Laurson, Mikael; Lehtonen, Heidi-Maria; Välimäki, Vesa
- 2005 **PWGLSynth: A Visual Synthesis Language for Virtual Instrument Design and Control**, *Computer Music Journal*.
with Laurson, Mikael; Kuuskankare, Mika

Conference articles

- 2016 **Kronos Meta-Sequencer—From Ugens to Orchestra, Score and Beyond**, *Proceedings of the International Computer Music Conference*.
- 2014 **Exploring the Vectored Time Variant Comb Filter**, *Proc. of the 17th Int. Conference on Digital Audio Effects*, FAU Erlangen-Nürnberg.
- 2013 **Kronos Vst â the Programmable Effect Plugin**, *Proceedings of the International Conference on Digital Audio Effects*.
- 2013 **Recent Developments in the Kronos Programming Language**, *Proceedings of the International Computer Music Conference*.

Other merits

- 2011-2014 **Sibelius Academy University of Namibia collaboration**.
Research and field recording of indigenous Namibian music with applications to Namibian music education. Funded by the Finnish Ministry for Foreign Affairs.
- 2009 **1. dan, Shorinji Kempo**.
Certification for a black belt in Shorinji Kempo, a Japanese martial art.