

Emre Neftci
Institute for Neural Computation, UCSD
9500 Gilman Dr.,
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Research Experience

- Aug. 2012 - Now
- **Postdoctoral researcher, University of California San Diego**
Institute for Neural Computation, group of Prof. Gert Cauwenberghs
Project: *State-Dependent Probabilistic Inference and Decision-Making in VLSI Spiking Neural Networks*
- Jan. 2011 - Jul. 2012
- **Postdoctoral researcher, ETH Zurich and University of Zurich**
Institute of Neuroinformatics, group of Prof. Rodney Douglas and Prof. Giacomo Indiveri
Project: *Synthesizing cognition in neuromorphic electronic systems*
- Feb. 2007 - Dec. 2010
- **PhD Physics and Neuroscience, ETH Zurich and University of Zurich**
Institute of Neuroinformatics, group of Prof. Rodney Douglas and Giacomo Indiveri
Thesis: *Towards Spiking Neuron Assemblies as General-Purpose Processors*
Committee members: Prof. Rodney Douglas, Prof. Giacomo Indiveri, Prof. Stefano Fusi, Dr. Elisabetta Chicca

Education

- Jan. 2006 - Jul. 2006
- **Chinese language course, Donghua University, Shanghai**
Full-time study of oral and written chinese
- Sep. 2001 - Jan. 2006
- **MSc physics, EPF Lausanne**
Thesis in condensed matter physics, group of Prof. F. Mila
- Aug. 1997 - Jun. 2001
- **Scientific Matura, College de Candolle, Geneva**

Academic Visits

- Mar. 2012
- Cognitive Interaction Technology - Center of Excellence, Bielefeld University, Bielefeld, Germany. Host: Elisabetta Chicca
- Jul. 2011
- Institute for Neural Computation, University of California San Diego, USA. Host: Gert Cauwenberghs

Grants and Fellowships

- Jun. 2012
- Postdoc fellowship (Swiss National Science Foundation - Advanced Researcher fellowship, \$95900)
- Dec. 2007
- NIPS travel award (\$800)

Teaching experience

- 2014 • MURI winter school, UCSD (1 invited lecture on spiking neurons models and cognition)
- 2013 • Introduction to Cognitive Sciences, UCSD (1 invited lecture, Introduction to cognitive neuromorphic engineering)
- 2012 • Faculty Research Seminar for graduate students, UCSD (1 invited lecture on research topics in neuromorphic engineering)
- 2008 – 2010 • Teaching Assistance for Physik I and II, ETH Zurich, (4 semesters)

Invited Talks

- Oct. 2014 • IEEE SOI-3D-Subthreshold Microelectronics, San Fransisco, USA
- Jul. 2014 • Mini-Conference: Many faces of Computation, University of California San Diego, USA
- Jan. 2014 • MURI Winter School, University of California San Diego, USA
- Mar. 2013 • International Workshop on Neuromorphic and Brain-Based Computing Systems (NeuComp 2013), Grenoble, France
- Mar. 2013 • Computational and Systems Neuroscience (CoSyNe) workshop 2013, Salt Lake City, USA
- Oct. 2012 • Chalk-Talk, Institute for Neural Computation, University of California San Diego, USA
- Mar. 2012 • Cognitive Interaction Technology - Center of Excellence, Bielefeld University, Bielefeld, Germany
- Apr. 2012 • Cognitive Neuromorphic Engineering Workshop, Capo Caccia, Italy
- Jul. 2011 • Institute for Neural Computation, University of California San Diego
- Apr. 2011 • Cognitive Neuromorphic Engineering Workshop, Capo Caccia, Italy
- Dec. 2008 • Joint DAISY/FACETS EU Project workshop, Heidelberg, Germany
- Nov. 2008 • FIAS, Max-Planck Institute, Frankfurt, Germany

Professional activities

- Co-Organizer • MURI Winter School, Jan. 7-10 2014
- Co-Organizer • ISCA Neuromorphic Architectures, Jun. 14 2014
- Reviewer • Nature Communications
- Reviewer • PLOS Computational Biology
- Reviewer • IEEE TNNLS, TCAS, ISCAS, BioCAS

Professional activities (continued)

- Reviewer • Proceedings of the Institution of Mechanical Engineers
- Reviewer • Frontiers in Neuroscience, Frontiers in Neuroinformatics
- Reviewer • ACM Journal of Emerging Technologies

Technical Skills

- Programming: • Python, C++, Java, Matlab, Mathematica, Fortran, Perl, PHP, Unix Shell scripting, GNU make, Version Control (svn, git), MySQL.
- OS knowledge • Linux OS, Windows.
- Office Tools • \LaTeX , OpenOffice, MS Office Suite, Excel VBA Programming,.
- Imaging • Adobe Photoshop, Adobe Illustrator, Inkscape.
- CAD and IDE • Tanner Tools, Eagle, Eclipse, Netbeans.
- Internet • Python/Django, XML/XSLT, PHP/MySQL, Perl-CGI.

Language Skills

- **English, French, Turkish** : Native
- **German and Swiss-German** : Fluent
- **Chinese (mandarin)** : Basic