

## CV

Ella Emilia Peltonen  
Date of birth 21.2.1989

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## Education

2013 – 2017

PhD in Computer Science, University of Helsinki  
Thesis title *Iterative Data Analysis for Sensing Applications*  
Supervised by prof. Sasu Tarkoma in the NODES research group

2012 – 2013

Master of Science in Computer Science, University of Helsinki  
Subprogram Networking and Services  
Thesis title *An Approach to Machine Learning with Big Data*  
Supervised by prof. Sasu Tarkoma and dr. Eemil Lagerspetz

2009 – 2012

Bachelor of Science in Computer Science, University of Helsinki  
Minor subject: mathematics  
Thesis title *Data visualizations with pixel-based technique* (in Finnish)  
Member of researcher candidate subprogram for students of Bachelor degree (tutkijalinja)

## Experience

October 2013 – present

PhD candidate, early-stage researcher in CS Department, University of Helsinki  
Research and teaching in distributed computing, machine learning, and data science

2012 – September 2013

Research assistant in CS Department, University of Helsinki  
Research for Master's thesis and other topics in distributed computing and machine learning.  
Participated in the Carat project in collaboration with University California, Berkeley, and the Internet of Things (IoT) project of Finnish DIGILE

2011 – 2012

Part-time teacher in CS Department, University of Helsinki  
Assisted courses of computer networking, computer security, and artificial intelligence

May 2011 – December 2011

Research assistant in Institute of Seismology, University of Helsinki  
Work related to seismic data management, machine learning, and scientific software development

2010 – 2011

Part-time teacher in the adult education center Edupoli  
Courses of basic computer usage and graphic design

## **Technologies**

In everyday use: Spark, Scala, Matlab, Bash, Linux command-line tools

Familiar with: Java, C, Octave, Processing, Web development tools, Graphic design tools

## **Languages**

Native Finnish, full professional English (CEFR C2), intermediate Swedish and German (CEFR B2), basics in Russian and Latin

## **Research interests**

Ubiquitous computing, Machine learning for large data sets, Clouds and distributed computing, Sensors and everyday sensing, Mobile and wearable devices

## **Awards and Scholarships**

Rising Stars in Networking and Communications 2017 by N2 Women

Nokia Scholarship 2016

Junior Researcher of the Year 2015 in CS Department, University of Helsinki

Nokia Scholarship 2015

Marc Weiser Best Paper Award, PerCom 2015

Runner-up: Best PhD Forum Presentation Award, PerCom 2015

Junior Teacher of the Year 2012 in CS Department, University of Helsinki

## **Research visits and collaboration**

University of Oulu, Finland, two weeks in March 2017

University College London, UK, five months in March-July 2016

University of Cambridge, UK, five weeks in October 2014

University of California, Berkeley, USA, two weeks in April-May 2014

## **Teaching**

Supervised three Master's Theses 2015 - 2017

Supervised nine Bachelor Theses 2013 - 2017

Assistant in course Location-Awareness (autumn 2016)

Assistant in course Big Data Frameworks (spring 2015)

Lecturer in course Spark Code Camp (summer 2014)

Co-lecturer in course Data Communication Project (spring 2013)

Assistant in course Introduction to Data Communication (autumns 2011, 2012)

Assistant in course Introduction to Computer Security (spring 2012)

Assistant in course Programming Project (spring 2012)

Assistant in course Introduction to Artificial Intelligence (autumn 2011)

## **Activities**

Researcher member of CS Department council 2014 - 2017

Student member of CS Department council 2012 - 2013

Member of task force for developing teaching in CS Department 2011 - 2013

Tutor in Faculty of Science, 2010 and 2011

Student organization TKO-äly ry, member of the board 2010 - 2012, Vice President 2012

Press officer in the science fiction convention Finncon 2009 and 2010

## Publications

Ella Peltonen and Sasu Tarkoma. *A Holistic View to Smartphone Energy Consumption*. The 2nd MobiSys Women's Workshop (Mobisys 2017). Niagara Falls, NY, USA, June 19th 2017.

Ella Peltonen, Eemil Lagerspetz, Petteri Nurmi, and Sasu Tarkoma. *Too Big to Mail: On the Way to Publish Large-scale Mobile Analytics Data*. Open Science in Big Data Workshop (IEEE Big Data), December 2016.

Online <http://ieeexplore.ieee.org/document/7840871/>

Stephan Sigg, Eemil Lagerspetz, Ella Peltonen, Petteri Nurmi, and Sasu Tarkoma. *Sovereignty of the Apps: There's more to Relevance than Downloads*. 29 Nov 2016, in arXiv:1611.10161

Ella Peltonen, Eemil Lagerspetz, Petteri Nurmi, and Sasu Tarkoma. *Constella: Crowdsourced System Setting Recommendations for Mobile Devices*. Pervasive and Mobile Computing, Volume 26, February 2016, pages 71 - 90.

Online <http://www.sciencedirect.com/science/article/pii/S1574119215001959>

Ella Peltonen, Eemil Lagerspetz, Petteri Nurmi, and Sasu Tarkoma. *Where Has My Battery Gone? A Novel Crowdsourced Solution for Characterizing Energy Consumption*. IEEE Pervasive Computing. January/March 2016.

Online <http://ieeexplore.ieee.org/document/7389259/>

Ella Peltonen, Eemil Lagerspetz, Petteri Nurmi, and Sasu Tarkoma. *Energy Modeling of System Settings: A Crowdsourced Approach*. In Proceedings of the IEEE International Conference on Pervasive Computing and Communications, PerCom '15, St. Louis, MO, USA, March 23-27, 2015. Marc Weiser Best Paper Award.

Online <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7146507>

Ella Peltonen. *Iterative Data Analysis for Sensing Applications*. In Proceedings of the IEEE International Conference Pervasive Computing and Communication Workshops (PerCom Workshops). St. Louis, MO, USA. March 23-27, 2015. Runner-up for Best PhD Forum Presentation Award.

Online <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7134039>

Ella Peltonen. *An Approach to Machine Learning with Big Data*. Master's Thesis, University of Helsinki. October 2013.

Online <http://hdl.handle.net/10138/40924>