

Kevin Wilkinghoff

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EDUCATION

10/2014 Master of Science in Computer Science (with distinction)
-5/2017 Rheinische Friedrich-Wilhelms-Universität, Bonn
Thesis: *Neural Networks in Speaker Identification*
Supervisor: Prof. Dr. Frank Kurth

10/2010 Bachelor of Science in Mathematics
-2/2014 Westfälische Wilhelms-Universität, Münster
Minor subject: Computer Science
Thesis: *Homogenisierung nichtlinearer elliptischer Differentialgleichungen*
Supervisor: Prof. Dr. Mario Ohlberger

8/2000 Abitur
-6/2009 Freiherr-vom-Stein-Gymnasium, Hamm

INTERESTS

Open-Set Classification
Speaker Recognition
Acoustic Scene/Event Classification
Keyword Spotting

AWARDS

1/2019 [Kölner VDI Förderpreis 2018](#) (third prize)
8/2018 [AFCEA Bonn Studienpreis 2018](#) (first prize)

EXPERIENCE

6/2017 Research Associate
-today Fraunhofer Institute for Communication, Information Processing and Ergonomics FKIE, Wachtberg
Conducting foundational and project related research on the following topics: Speaker Recognition, Keyword Spotting and Acoustic Scene/Event Classification

10/2016 Student Assistant
-6/2017 Fraunhofer Institute for Communication, Information Processing and Ergonomics FKIE, Wachtberg
Evaluating various techniques for recognizing speakers for my Master's thesis

1/2014 Student Assistant
-12/2014 Institute of Materials Research, Deutsches Zentrum für Luft- und Raumfahrt, Köln
Writing scripts to automatically evaluate measurement data

11/2013 Student Assistant
-3/2014 Institute for Numerical Simulation, Rheinische Friedrich-Wilhelms-Universität, Bonn
Refactoring of a software package for k-nearest neighbor search

8/2009 Civilian Service
-4/2010 St. Marien-Hospital, Hamm

TEACHING

- 10/2014 Student Assistant: Tutor
 -9/2016 Mathematical Institute and Institute of Computer Science, Rheinische Friedrich-Wilhelms-Universität, Bonn
- Summer 2016: Lineare Algebra für Informatiker und Lehramt (2 hours per week)
 Artificial Life (4 hours per week)
 - Winter 2015: Analysis 1 (4 hours per week)
 Technical Neural Nets (4 hours per week)
 - Summer 2015: Analysis 2 (2 hours per week)
 Artificial Life (2 hours per week)
 - Winter 2014: Analysis 1 (4 hours per week)
- 10/2012 Student Assistant: Tutor
 -9/2013 Mathematical Institute and Institute of Computer Science, Westfälische Wilhelms-Universität, Münster
- Summer 2013: Diskrete Strukturen (4 hours per week)
 - Winter 2012: Analysis 1 (2 hours per week)

PUBLICATIONS

- [1] Kevin Wilkinghoff. “On Open-Set Speaker Identification with I-Vectors”. In: *The Speaker and Language Recognition Workshop (ODYSSEY)*. ISCA, 2020.
- [2] Hans-Christian Schmitz, Frank Kurth, Kevin Wilkinghoff, Uwe Müllerschowski, Christian Karrasch, and Volker Schmid. “Towards Robust Speech Interfaces for the ISS”. In: *International Conference on Intelligent User Interfaces (IUI) Companion*. ACM, 2020, pp. 110–111.
- [3] Hans-Christian Schmitz, Alessia Cornaggia-Urrigshardt, Fahrettin Gökgöz, Samantha Kent, and Kevin Wilkinghoff. “Calm Interfaces for Integrated C2 Systems”. In: *International Command and Control Research and Technology Symposium (ICCRTS)*. 2019.
- [4] Kevin Wilkinghoff and Frank Kurth. “Open-Set Acoustic Scene Classification with Deep Convolutional Autoencoders”. In: *Detection and Classification of Acoustic Scenes and Events Workshop (DCASE)*. New York University, 2019, pp. 258–262.
- [5] Kevin Wilkinghoff. “General-Purpose Audio Tagging by Ensembling Convolutional Neural Networks based on Multiple Features”. In: *Detection and Classification of Acoustic Scenes and Events Workshop (DCASE)*. Tampere University of Technology, 2018, pp. 44–48.
- [6] Kevin Wilkinghoff. “Accurately Capturing Speech Feature Distributions by Extending Supervectors for Robust Speaker Recognition”. In: *13th ITG Symposium on Speech Communication (ITG Speech)*. VDE-Verlag, 2018, pp. 81–85.
- [7] Kevin Wilkinghoff, Paul M. Baggenstoss, Alessia Cornaggia-Urrigshardt, and Frank Kurth. “Robust Speaker Identification by Fusing Classification Scores with a Neural Network”. In: *13th ITG Symposium on Speech Communication (ITG Speech)*. VDE-Verlag, 2018, pp. 261–265.
- [8] Frank Kurth and Kevin Wilkinghoff. “Robust Detection of Jittered Multiply Repeating Audio Events using Iterated Time-Warped ACF”. In: *International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. IEEE, 2018, pp. 276–280.
- [9] Paul M. Baggenstoss, Kevin Wilkinghoff, and Frank Kurth. “Glottal Mixture Model (GLOMM) for Speaker Identification on Telephone Channels”. In: *25th European Signal Processing Conference (EUSIPCO)*. IEEE, 2017, pp. 2734–2738.

SERVICE

Reviewer for: IEEE Access, Pattern Recognition Letters (Elsevier)

Kevin Wilkinghoff
 Bonn, March 30, 2020