Dr.-Ing. Jens Schneider

Curriculum Vitae

Personal Information

Date of Birth	30.09.1990
Nationality	German

Education

01/2016–11/2021	**Doctoral Studies in Video Compression**, *RWTH Aachen University*
10/2013–12/2015	**Electrical Engineering M.Sc.**, *RWTH Aachen University*
10/2010–09/2013	**Electrical Engineering B.Sc.**, *RWTH Aachen University*
08/2001–07/2010	**Abitur**, *Viktoriaschule*, Aachen

Dissertation

Title	*Sparse Signal Modeling in Video Coding*
Description	Implementation and analysis of sparse signal models in the context of hybrid video coding and higher level coding schemes.

Professional Experience

02/2022–today	**Software Engineer**, *23 Technologies*
	Development of software components for the open source Kubernetes Engine Gardener. Development of a Deployment- und Maintenancetool for Gardener landscapes. Deployment of cloud native solutions for the research project SMD4FZI, especially in the field of asset administration shell infrastructure.
01/2016–01/2022	**Researcher**, *RWTH Aachen University*, Institut für Nachrichtentechnik
	Research in the field of video coding and machine learning. Mathematical modeling and implementation of the corresponding models in the reference software packages for HEVC, SHVC, and VVC. Build up and lead of a team of students for the development of algorithms and analysis tools. Teaching at bachelor's and master's level. System administration (GNU/Linux).

Scholarships

2010–2016	**Cusanuswerk**
	Interdisciplinary Education, participation in four summer schools

Programming Experience

Matlab, Python, C++
Scientific Programming

Go, Shell
Cloud/Kubernetes Programming

Languages

German   native
English   fluent

Volunteer Work

03/2018–today   **Tennis Club Aachen-Vaalserquartier 1986 e.V**
Member of the executive board

since 2014   **Cusanuswerk**
Software development project for automatic assignment of participants to summer school seats

Publications

[1] J. Schneider, *Sparse Signal Modeling in Video Coding*, vol. 24. Aachen: Shaker Verlag, Jan. 2022.

[2] J. Schneider, J. Sauer, and M. Wien, "Rdplot – an evaluation tool for video coding simulations," in *Visual Communications and Image Processing VCIP '21*, (Munich), IEEE, Piscataway, 12 2021.

[3] J. Schneider and C. Rohlfing, "Dictionary learning-based reference picture resampling in vvc," in *Visual Communications and Image Processing VCIP '21*, (Munich), IEEE, Piscataway, 12 2021.

[4] J. Schneider, D. Mehlem, M. Meyer, and C. Rohlfing, "Sparse Coding-based Intra Prediction in VVC," in *2021 Picture Coding Symposium (PCS)*, (Bristol, UK), June 2021.

[5] J. Schneider, J. Sauer, and C. Rohlfing, "Adaptive resolution change using uncoded areas and dictionary learning-based super-resolution in versatile video coding," in *ICASSP 2020 - 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pp. 2203–2207, 2020.

[6] J. Schneider, M. Bläser, and M. Wien, "Sparse Coding based Frequency Adaptive Loop Filtering for Video Coding," in *Proc. of Packet Video '18*, (Amsterdam, Netherlands), ACM, June 2018.

[7] J. Schneider, J. Sauer, and M. Wien, "Dictionary Learning based High Frequency Inter-Layer prediction for Scalable HEVC," in *Proc. of IEEE Visual Communications and Image Processing VCIP '17*, (St. Petersburg, USA), IEEE, Piscataway, Dec. 2017.

[8] J. Schneider, J. Sauer, and M. Wien, "Enhanced view synthesis prediction for coding of non-coplanar 3d video sequences," in *2016 Picture Coding Symposium (PCS)*, pp. 1–5, 2016.

Aachen, July 24, 2023

✉ *jens.schneider.ac@posteo.de*   •   🌐 *saturnv.de*   •   ⚬ *JensAc*
in *JensAc*