Curriculum Vitae

Name	Prof. Dr.-Ing. Sebastian Stober
Position	Full Professor
Affiliation	Artificial Intelligence Lab Institute for Intelligent Cooperating Systems Faculty of Computer Science Otto von Guericke University Magdeburg
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Education

2011	Dr.-Ing. (summa cum laude) Otto von Guericke University, Magdeburg, Germany
2005	Dipl.-Inform. (with distinction, overall average grade 1.0) Otto von Guericke University, Magdeburg, Germany
2000	Advanced level degree (Mittelstufe II) in Drums (with distinction) Kreismusikschule Halberstadt, Germany
1999	A Levels (with distinction, overall average grade 1.0) Gymnasium "Martineum", Halberstadt, Germany

Honors & Scholarships

2018	NVIDIA – Hardware Grant
2017	University of Potsdam – E-Learning Award
2017	Erwin Schrödinger Institute, Vienna – Travel Grant
2017	German Academic Exchange Service (DAAD) – Travel Grant
2016–2017	Potsdam Graduate School / BMBF – "Senior Teaching Professionals" Fellow
2016	NVIDIA – Hardware Grant
2015	Cognitively based Music Informatics Research (CogMIR) – Best Presentation Award
2015	Highlighting Audio and Music Researchathon (HAMR), Cornell University – Best Code Award
2014–2015	**German Academic Exchange Service (DAAD) – Postdoc Fellowship**
2012	Gesellschaft für Informatik e.V. – Nomination for the Best Dissertation Award
2012	**Otto von Guericke University – Best Dissertation Award**
2012	Faculty of Computer Science, Otto von Guericke University – Best Dissertation Award
2011	International Conference on Novel Gaze-Controlled Applications – Best Paper Award
2010	International Society for Music Information Retrieval (ISMIR) – Student Travel Grant
2007–2010	**German National Academic Foundation – Graduate Scholarship**
2006	Faculty of Computer Science, Otto von Guericke University – Best Graduate Award
2001–2005	**German National Academic Foundation – Scholarship**
1998–2000	State Saxony-Anhalt – Scholarship for Extended Music Education

Active Memberships

ISMIR	International Society for Music Information Retrieval (founding member & WiMIR mentor)
	Bernstein Association for Computational Neurocience e.V.
eLeMeNTe	Landesverein Sachsen-Anhalt zur Förderung mathematisch, naturwissenschaftlich und technisch interessierter und talentierter Schülerinnen, Schüler und Studierender e.V. (founding member)

Scientific Career / Work Experience

since 10/2018	Full professor for Artificial Intelligence Faculty of Computer Science, Otto von Guericke University, Magdeburg, Germany
01/2016–09-2018	Head of junior research group "Machine Learning in Cognitive Science" Research Focus Cognitive Sciences, University of Potsdam, Germany – deep learning techniques for analyzing brain activity, gaze, language and speech
09/2013–12/2015	Post-doctoral fellow at the Owen Lab (Canada Excellence Research Chair in Cognitive Neuroscience) Brain and Mind Institute, University of Western Ontario, Canada – pioneering work on deep learning for analyzing electroencephalography (EEG)
01/2006–08/2013	Graduate / post-doctoral researcher at the Data & Knowledge Engineering Group Faculty of Computer Science, Otto von Guericke University, Magdeburg, Germany – user-adaptive information retrieval systems for text, music and multimedia
04/2004–09/2005	Research assistant at the Information Retrieval Group (part-time) Faculty of Computer Science, Otto von Guericke University, Magdeburg, Germany
09/2003–03/2004	Research intern at the Mechatronics Research Group (full-time) University of Melbourne, Australia
04/2001–08/2003	Research assistant at the Information Retrieval Group (part-time), and Software developer at the University Language Center (part-time) Otto von Guericke University, Magdeburg, Germany

Grants

04/2020–03/2022	SENECA – A self-learning decision support system for real-time job sequence and machine allocation planning Federal Ministry of Science and Research (BMBF)
10/2019–09/2022	CogXAI – Cognitive neuroscience Inspired techniques for eXplainable AI Federal Ministry of Science and Research (BMBF)
04/2018	Project planning workshop for "Artificial Intelligence and the Society of the Future" VolkswagenStiftung
02/2018	Demo "How does Artificial Intelligence work?" in the exhibition "Forschungsfenster" VolkswagenStiftung
11/2017–02/2020	UPracticeML – Extending the Machine Learning Curriculums in the Cognitive Systems Master at the University of Potsdam (co-applicant with Manfred Stede) Federal Ministry of Science and Research (BMBF)
05/2017–03/2018	Holmes – Phase 1: Intelligent Snapshot Analysis (R&D project) Revacom GmbH
02/2014–12/2015	Brain-Computer Interaction through Music Imagery German Academic Exchange Service (DAAD)
01/2013–12/2016	SFB-TRR 62: Companion Technology – Project B4: Characterization and Modelling of Information Seeking Dialogues (co-applicant) German Research Foundation (DFG) Collaborative Research Center (CRC/SFB)
03/2012–08/2013	BLE-X Navigator (R&D project) EFB – European Research Association for Sheet Metal Working
01/2008–03/2012	Adaptive User-Centered Organization of Music Archives (co-applicant) German Research Foundation (DFG)

Scientific Services

Workshops	*International Workshop on Adaptive Multimedia Retrieval (AMR)*, 2007–2012 *International Workshop on Learning Semantics of Audio Signals (LSAS)*, 2006–2008 *Workshop on Learning, Knowledge and Adaptivity (LWA)*, 2011
Reviewing (selected)	Nature Scientific Reports; Biomedical Engineering; Psychomusicology: Music, Mind, and Brain; J. of Intelligent Information Systems; IEEE Trans. on Systems, Man and Cybernetics; IEEE Trans. on Knowledge and Data Engineering; IEEE Trans. on Biomedical Engineering; IEEE Trans. on Affective Computing; ACM Trans. on Intelligent Systems and Technology; Trans. of the Int. Society for Music Information Retrieval (TISMIR); National Science Foundation (NSF); Austrian Science Fund (FWF); Conf. on Neural Information Processing Systems (NIPS); Conf. of the Int. Society for Music Information Retrieval (ISMIR); ACM Conf. on Human Factors in Computing Systems (CHI); ACM Conf. on Intelligent User Interfaces (IUI); Association for Computational Linguistics (ACL); Organization for Human Brain Mapping (OHBM); AES Conf. on Semantic Audio
Mentoring	Mentoring Plus Programme at the University of Potsdam (2017–2018) Junior Teaching Professionals at the Potsdam Graduate School (2017–2018) Women in MIR (WiMIR, since 2016) UniMentor at the Otto von Guericke University (2004–2006)
Other	Faculty Research Commission – staff representative (2007–2013) University of Potsdam Research Focus Cognitive Sciences – executive committee member (2016–2018) Potsdam Graduate School – postdoc representative (2016–2018)

Selected Peer-Reviewed Publications

N. Aldoj, F. Biavati, F. Michallek, **S. Stober** and M. Dewey. Automatic prostate and prostate zones segmentation of magnetic resonance images using DenseNet-like U-net. *Scientific Reports*, 10:1, 2020.

A. Vahid, M. Mückschel, **S. Stober**, A. K. Stock and C. Beste. Applying deep learning to single-trial EEG data provides evidence for complementary theories on action control. *Communications Biology*, 3:1, 2020.

A. Ofner and **S. Stober**. Towards Bridging Human and Artificial Cognition: Hybrid Variational Predictive Coding of the Physical World, the Body and the Brain. In *NeurIPS Workshop on Modeling the Physical World*, 2018.

A. Krug, R. Knaebel and **S. Stober**. Neuron Activation Profiles for Interpreting Convolutional Speech Recognition Models. *NeurIPS Interpretability and Robustness for Audio, Speech and Language Workshop*, 2018.

A. Ofner and **S. Stober**. Shared generative representation of auditory concepts and EEG to reconstruct perceived and imagined music. In *19th International Society for Music Information Retrieval Conference (ISMIR'18)*, 2018.

D. A. Bridwell, J. F. Cavanagh, A. G. E. Collins, M. D. Nunez, R. Srinivasan, **S. Stober** and V. D. Calhoun. Moving Beyond ERP Components: A Selective Review of Approaches to Integrate EEG and Behavior. *Frontiers in Human Neuroscience*, 12:106, 2018.

S. Stober. Towards Studying Music Cognition with Information Retrieval Techniques: Lessons Learned from the OpenMIIR Initiative. *Frontiers in Psychology*, 8, 2017.

A. Krug and **S. Stober**. Adaptation of the event-related potential technique for analyzing artificial neural nets. In *Conference on Cognitive Computational Neuroscience (CCN'17)*, 2017.

S. Stober. Learning discriminative features from electroencephalography recordings by encoding similarity constraints. In *Proceedings of 42nd IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP'17)*, pages 6175–6179, 2017.

S. Stober, D. J. Cameron, and J. A. Grahn. Using convolutional neural networks to recognize rhythm stimuli from electroencephalography recordings. In *Advances in Neural Information Processing Systems 27 (NIPS'14)*, pages 1449–1457, 2014.

A full list of publication is available at https://bib.sebastianstober.de.