

Curriculum Vitae

Ing. Mgr. Jan Romportl, Ph.D.

Highest achieved education: Ph.D. in Artificial Intelligence

Background: computer science; artificial intelligence; data science and big data; cybernetics and control engineering; man-machine communication; speech technologies; computational linguistics; cognitive science; interdisciplinary research; philosophy

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Employment

O2 Czech Republic a.s.

July 2015–

Chief Data Scientist

Building and leading a team of 12–14 data scientists and data engineers working on O2's big data platforms (Hadoop, Aster); managing, consulting and mentoring all stages of Data Science Pipeline (getting and cleaning data, exploratory analysis, inferential analysis, predictive modelling and machine learning, developing data products); managing broad range of data-driven projects and insights for internal and external business cases (e.g. antichurn models, recommendation systems, customer scoring, webprofiling of customers, socio-demo and behavioural models of customers, smart targeting, geolocation-based optimisation, non-structured big data cleaning, etc.); designing, planning and managing further development of big data platforms for advanced machine learning and near-real-time stream processing (Spark based ML tools on internal cluster, utilisation of MS Azure HDInsight platform for big data); managing big data security and privacy issues.

National Institute of Mental Health, Prague – Klecany

February 2015–

senior researcher and research group leader (current joint appointment)

Data science in psychiatry; man-machine interaction as a tool for diagnosis and treatment in psychiatry; role of wearables and big data in psychiatry; artificial intelligence. Leading Research Group on New Analysis Methods in Psychiatry.

Department of Interdisciplinary Activities, New Technologies Research Centre, University of West Bohemia, Pilsen

**2009–
August 2015**

head of department

Interdisciplinary research in the field of man-machine interaction and human cognitive enhancement; data science of wearables (with focus on smartglasses); department strategy and planning; human resources; project preparation and management; research coordination; team leadership; mentoring.

Department of Cybernetics, University of West Bohemia, Pilsen

**2009–
August 2015**

senior researcher and lecturer

Data-driven approaches to text-to-speech synthesis; evaluation of synthetic speech naturalness; medical, healthcare and assistive applications of speech synthesis and voice banking; research and development of speech prosthesis for patients after total laryngectomy; neuroscientific assessment of speech synthesis; teaching MSc. and Bc. courses; supervising diploma theses.

SpeechTech, s.r.o.

**2006–
August 2015**

researcher and project manager

Project management; research and development in the field of text-to-speech synthesis.

Institute of Formal and Applied Linguistics, Charles University, Prague 2005–2009
junior researcher

Statistical and data-driven prosody models in text-to-speech synthesis; formal framework for prosody description and synthesis.

Department of Cybernetics, University of West Bohemia, Pilsen 2002–2008
junior researcher and lecturer

Prosody in text-to-speech synthesis; software development (C++, Perl, Python, PHP, SQL); evaluation of synthetic speech naturalness by perception data analysis; teaching.

Education

Master's (Mgr.) in Theory and Philosophy of Communication 2009–2012
University of West Bohemia, Pilsen, Faculty of Philosophy and Arts

Ph.D. in Artificial Intelligence 2004–2009
University of West Bohemia, Pilsen, Faculty of Applied Sciences
dissertation "Improving Naturalness of Machine-Generated Speech on the Suprasegmental Level" (examiners: doc. Ivan M. Havel, prof. Jana Tučková; supervisor: prof. Josef Psutka)

Master's (Ing.) in Cybernetics and Control Engineering 1999–2004
University of West Bohemia, Pilsen, Faculty of Philosophy and Arts
specialisation Artificial Intelligence

Certificate Programmes January–June 1998
Hastings College of Arts and Technology (UK), International Department

Professional training and courses

Big Data Specialization (Coursera Capstone, verified certificates)
University of California, San Diego

The specialization comprises 5 standalone University of California courses covering Hadoop platform, big data analytics, machine learning with big data, and graph analytics.

Executive Data Science Specialization (Coursera Capstone, verified certificates)
Johns Hopkins University, Bloomberg School of Public Health

The specialization comprises 4 standalone Johns Hopkins University courses covering the whole Data Science project and team management.

Data Science Specialization (Coursera Capstone, verified certificates)
Johns Hopkins University, Bloomberg School of Public Health

The specialization comprises 9 standalone Johns Hopkins University courses covering the whole Data Science Pipeline.

The list of all accomplished courses together with the verified certificates is available on my LinkedIn profile.

Senior Technology Transfer Manager (TTM-S)

Innovation Leadership Agency – ILA, s.r.o.

Accredited in Consortium EUKTS.

Most important research projects

Naturalness in Human Cognitive Enhancement <i>principal investigator until August 2015</i> CZ09 Czech-Norwegian Research Programme, project 7F14236 HCENAT	2014–2017
Interdisciplinary Partnership for Artificial Intelligence <i>principal investigator</i> EC European Social Fund, project CZ.1.07/2.4.00/17.0055 MOAINet	2011–2014
Intelligent Technologies for Improving Air Traffic Safety <i>researcher and project manager for SpeechTech, s.r.o.</i> Technology Agency of the Czech Republic, project TA01030476	2011–2016
Innovative Methods for High-Quality Synthesis of Czech Speech <i>researcher</i> Grant Agency of the Czech Republic, project GACR 102/09/0989	2008–2011
COMPANIONS – Intelligent, Persistent, Personalised Multimodal Interfaces to the Internet <i>researcher, research area coordinator</i> EC Framework Programme 6, project IST 034434	2007–2010
Elimination of the language barriers faced by the handicapped watchers of the Czech Television, part I & part <i>researcher</i> MSMT, project 2C06020, and TACR, project TA01011264	2006–2015
Centre for Computational Linguistics <i>researcher</i> MSMT, project LC536	2005–2011

Stays abroad

SentiMonitor Social Media Intelligence, Porto Alegre, Brasil <i>short-term academic visitor and consultant</i> issues of expansion of the company into Slavic languages; invited talk at Universidade Federal do Rio Grande do Sul for the speech technology group	April 2014
Future of Humanity Institute, University of Oxford <i>short-term academic visitor</i> risks and benefits of Artificial Intelligence	October 2011
Centre for Language & Communication Studies, Trinity College Dublin <i>short-term academic visitor</i> problems of data acquisition for speech synthesis	October 2011
Telefónica Investigación y Desarrollo (R&D), Madrid <i>project integration</i> data-driven embodied conversational agent	six weeks in 2009–2010
Centre for Speech Technology Research, University of Edinburgh <i>short-term academic visitor</i> statistical and quantitative approaches to speech synthesis	December 2007
Hastings College of Arts and Technology, International Department <i>student</i>	January–June 1998

Reviewer

Technology Agency of the Czech Republic
project evaluator and reviewer

Verification and Evaluation Panel of Research, Development and Innovation Council of the
Government of the Czech Republic
member and reviewer

Biomedical Signal Processing and Control, Elsevier Science
journal reviewer

Journal of Experimental & Theoretical Artificial Intelligence, Taylor & Francis
journal reviewer

Computer Speech and Language, Elsevier Science
journal reviewer

Speech Communication, Elsevier Science
journal reviewer

Language Resources and Evaluation, Springer
journal reviewer

Imperial College Press
book reviewer

Programming Skills

Intensively works/worked with: R, Python, Perl, PHP, SQL, Matlab, C++, various Hadoop ecosystem parts

Intensively worked with in past but then abandoned for good: Delphi, Pascal, Atari Turbo Basic

Touched, and either didn't like or didn't have a chance to work more with: Objective C, Lisp, Prolog, noname postfix stack language used in BST files

Languages

English (full professional proficiency); Czech (native proficiency); German (limited working proficiency); Russian (limited working proficiency); Slovak (professional working proficiency)

Selected publications

Romportl, J. Semisets and emergence. In *Filosofický časopis*, 64, 2016/1, pp. 587–599.

Jůzová, M., Romportl, J., Tihelka, D. Speech Corpus Preparation for Voice Banking of Laryngectomised Patients. In *Text, Speech, and Dialogue*. Springer, pp. 282–290, 2016.

Romportl, J. Naturalness of Artificial Intelligence. In *Beyond Artificial Intelligence: The Disappearing Human-Machine Divide*. Topics in Intelligent Engineering and Informatics, vol. 9, p. 211-216, Springer International Publishing, 2014.

Romportl, J., Zackova, E., Kelemen, J. (eds.) *Beyond Artificial Intelligence: The Disappearing Human-Machine Divide*. Topics in Intelligent Engineering and Informatics, vol. 9. Springer International Publishing, 2014.

Kelemen, J., Romportl, J., Zackova, E. (eds.). *Beyond Artificial Intelligence: Contemplations, Expectations, Applications*. Topics in Intelligent Engineering and Informatics, vol. 4. Berlin–Heidelberg: Springer, 2012.

Zackova, E., Romportl, J. Extended Mind: Is There Anything at All To Be Externalised? In *Beyond Artificial Intelligence: Contemplations, Expectations, Applications*. Topics in Intelligent Engineering and Informatics, vol. 4. Springer, Heidelberg, 2012, 213–221.

Hanzlíček, Z., Romportl, J., Matoušek, J.: Voice Conservation: Towards Creating a Speech-Aid System for Total Laryngectomees . In *Beyond Artificial Intelligence: Contemplations, Expectations, Applications*. Topics in Intelligent Engineering and Informatics. vol. 4. Springer, Heidelberg, 2012, 203–212.

Romportl, J., Matoušek, J., Several aspects of machine–driven phrasing in text–to–speech systems. In *The Prague Bulletin of Mathematical Linguistics*, vol. 95, p. 51–61, 2011.

Romportl, J., Zovato, E., Santos, R., Ircing, P., Relaño Gil, J., Danieli, M. Application of expressive TTS synthesis in an advanced ECA system. In *Proc. ISCA Tutorial and Research Workshop on Speech Synthesis*, p. 120–125. Kyoto: National Institute of Information and Communications Technology, 2010.

Romportl, J., Automatic prosodic phrase annotation in a corpus for speech synthesis. In *Proc. Speech Prosody 2010*. Chicago: University of Illinois, 2010.

Romportl, J., On the objectivity of prosodic phrases. In *The Phonetician*, vol. 96, p. 7–19, 2010.

Romportl, J., Prosodic phrases and semantic accents in speech corpus for Czech TTS synthesis. In *Lecture Notes in Artificial Intelligence*, vol. 5246, p. 493–500. Berlin–Heidelberg: Springer, 2008.

Romportl, J., Statistical evaluation of prosodic phrases in the Czech language. In *Proc. Speech Prosody 2008*, p. 755–758. Campinas: Editora RG/CNPq, 2008.

Tihelka, D., Romportl, J., Statistical evaluation of reliability of large scale listening tests. In *Proc. ICSP 2008*. Beijing, 2008..

Romportl, J., Kala, J., Prosody modelling in Czech text–to–speech synthesis. In *Proc. ISCA Tutorial and Research Workshop on Speech Synthesis*, p. 200–205. Bonn: Rheinische Friedrich–Wilhelms–Universität, 2007.

Romportl, J., Artificial thought and causal paradox of emergent systems (Umělé myšlení a kauzální paradox emergentních systémů). In V. Mařík – O. Štěpánková – J. Lažanský (eds.). *Artificial Intelligence vol. 5 (Umělá inteligence, 5. díl)*, chapter 4, p. 91–112. Prague: Academia, 2007.

Full publication list: https://www.researchgate.net/profile/Jan_Romportl/publications