CURRICULUM VITAE

Cristian Axenie

PERSONAL INFORMATION

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Citizenship	Romanian
Date of birth	14th of April 1986

ACADEMIC RECORD AND QUALIFICATIONS

as of October 2017	**Head of AKII Microlab (Artificial Intelligence and Virtual Reality)** at the AUDI Konfuzius Institute Ingolstadt, Ingolstadt, Germany
	Lecturer in **Artificial Intelligence and Machine Learning** at the Technical University of Ingolstadt, Germany
	Deep Learning Technical Adviser for Schanzer Racing Electric (SRE) team at Technical University of Ingolstadt.
as of July 2017	**AI and ML Technical Adviser** for GoalPlay GmbH & Co. KG (Munich) and Cambridge Humanae Ltd. (London)
as of April 2017	**Senior Research Engineer** in Machine Learning and Big Data, Huawei European Research Center, Munich, Germany
2016 - 2017	**Postdoctoral Researcher** at Neuroscientific System Theory Group Neuroengineering Competence Center, Technische Universität München, Germany
2011 - 2016	**Ph.D.** in Neuroscience and Robotics (**Summa cum Laude**) Dept. Electrical and Computer Engineering, Technische Universität München, Germany

2009 - 2011	**M.Sc.** in Advanced Control Engineering and Robotics (**top 1%**) Electrical and Electronics Engineering Faculty, Dunărea de Jos University (UGAL), Galați, Romania
2005 - 2009	**B.Sc.** in Automation and Industrial Informatics (**top 1%**) Computer Science Faculty, Dunărea de Jos University (UGAL), Galați, Romania

RECOGNITIONS AND ACHIEVEMENTS

April 2018	**Awarded** a **nVidia GPU Grant** for a Neuromorphic Processing for Electric Autonomous Driving with Schanzer Racing Electric (SRE) team at Technical University of Ingolstadt.
January 2017	**Media coverage in Microsoft Faculty Connection** for project demo at University of Cambridge Hackaton 2017 on Neural Computation for vision based elderly and seniors monitoring using MS Azure API.
January 2017	**Awarded a BayIntAn Fellowship (5000 EUR)** by the Bavarian Research Alliance for establishing a cooperation on the development of a platform for neuromorphic models of sensorimotor adaptation with ETH Zurich and University of California, Irvine
July 2016	**Awarded a BayIntAn Fellowship (10000EUR)** by the Bavarian Research Alliance for establishing a cooperation on neurorobotics with University of Waterloo, Canada and the University of Manchester, UK.
June 2016	**Media coverage in Wired** about work on neuromorphic computation for visual rehabilitation at **Hack the Senses** contest in London, UK.
April 2016	**Awarded 1st prize** at the **Daimler Automotive Big Data Analytics Hackaton** for the design of a neurofuzzy learning system for adaptive anomaly detection.
April 2016	**Awarded special Microsoft Cognitive Technologies prize at the Burda Hackdays** for the development of a neural learning system for psychometric data analytics.
March 2016	**Awarded 1st prize (5000EUR)** in the **BMW Automotive Hackdays** for the development of an artificial intelligence learning agent for predictive maintenance.
July 2013	**Awarded Research Fellowship (2500EUR)** by the Science Network of Biomimetic and Biohybrid Systems for leading a workgroup at the Telluride Neuromorphic Cognition Engineering Workshop, USA.
May 2013	**Awarded Research Fellowship (2500EUR)** by the Science Network of Biomimetic and Biohybrid Systems for leading a workgroup at the CapoCaccia Cognitive Neuromorphic Engineering Workshop, Italy.
April 2013	**Awarded a Leonhard Lorenz-Stiftung Fellowship (7000EUR)** for novel ideas in neurotechnologies research.
April 2012	**Awarded a Bavarian Elite Research PhD Scholarship (3 years funding, ~120.000EUR)** by the Bavarian Ministry of Sciences, Research and the Arts.

WORK AND TEACHING EXPERIENCE

October 2017 - present	**Lecturer** in **Artificial Intelligence and Machine Learning** at **TU Ingolstadt**.
October 2011 - 2017	**Teaching assistant** in Computational Intelligence at **TU Munich**.
July 2009 - July 2011	**Software engineer** in embedded Linux development at **Intel**.
October 2009 - September 2011	**Teaching assistant** in Programming (OOP, Assembly Languages, Digital Signal Processors) at **UGAL.**
July - October 2008	**Software engineer** in multi-core Digital Signal Processors (DSP) compiler development at **Freescale Semiconductor (NXP)**.

VARIA

as of 1992	Fanatic sportsman: from soccer to basketball, from biking to long distance running, and from greco-roman wrestling to rock climbing.
as of 1991	Passionate bookworm: from Isaac Asimov to Nietzsche, from Dostoyevski's realism to Kafka's metamorphosis, and from Jung's Red Book to Kandel's Principles of Neural Science.

REFERENCES

Prof. Jörg Conradt
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PUBLICATIONS

Journal articles

F. Mirus, **C. Axenie**, T. C. Stewart, J. Conradt, Neuromorphic Sensorimotor Adaptation for Robotic Mobile Manipulation: From Sensing to Behaviour, Cognitive Systems Research, 2018.

C. Axenie, C. Richter, J. Conradt, A Self-Synthesis Approach to Perceptual Learning for Multisensory Fusion in Robotics, Sensors 16(10) 1751, 2016. (PDF)

C. Axenie, J. Conradt, Cortically inspired sensor fusion network for mobile robot egomotion estimation, Robotics and Autonomous Systems, 2014. (PDF)

I. Susnea, **C. Axenie**, Cognitive Maps for Indirect Coordination of Intelligent Agents, Studies in Informatics and Control Vol. 24, 2015. (PDF)

I. Sugiarto, **C. Axenie**, J. Conradt, High Level Synthesis and Optimization of a Hardware Accelerator for an Embedded Factor Graph, ACM Transactions on Embedded Computing Systems (2016), submitted.

I. Sugiarto, **C. Axenie**, J. Conradt, From Adaptive Reasoning to Cognitive Factory: Bringing Cognitive Intelligence to Manufacturing Technology, International Journal of Industrial Research and Applied Engineering, 2016. (PDF)

Peer reviewed conference papers

C. Axenie, J. Conradt, Learning Sensory Correlations for 3D Egomotion Estimation, Springer LNCS in Biomimetic and Biohybrid Systems, pp. 329-338, 2015. (PDF)

C. Axenie, J. Conradt, Cortically Inspired Sensor Fusion Network for Mobile Robot Heading Estimation, Intl Conf. on Artificial Neural Networks, 2013, pp. 240-47. (PDF)

C. Axenie, R. Solea, Real time control design for mobile robot fault tolerant control. Introducing the ARTEMIC powered mobile robot, Mechatronics and Embedded Systems and Applications (MESA), 2010 IEEE/ASME Intl. Conf. on, 2010, pp. 7 -13. (PDF)

C. Axenie, D. Cernega, Adaptive sliding mode controller design for mobile robot fault tolerant control, Robotics in Alpe-Adria-Danube Region (RAAD), 2010 IEEE 19th International Workshop on, 2010, pp. 253-59. (PDF)

Peer reviewed conference abstract with poster presentation

C. Axenie, C. Richter, J. Conradt, Neuromorphic models of sensorimotor adaptation and learning, Bernstein Conf. on Comp. Neuroscience, Berlin, 2016. (PDF)

C. Axenie, C. Richter, M. Firouzi, J. Conradt, Synthesis of Distributed Cognitive Systems: An Approach to Learning Multisensory Fusion, Bernstein Conf. on Comp. Neuroscience, Heidelberg, 2015. (PDF)

C. Axenie, M. Firouzi, M. Mulas, J. Conradt, Multimodal sensor fusion for mobile robot egomotion estimation, Bernstein Conf. on Comp. Neuroscience, Göttingen, 2014. (PDF)

C. Axenie, J. Conradt, A model for development and emergence in multisensory integration, Bernstein Conf. on Computational Neuroscience, Göttingen, 2014. (PDF)

M. Firouzi, **C. Axenie**, J. Conradt, Multi-sensory cue integration with reliability encoding, using Line Attractor Dynamics, searching for optimality, Bernstein Conf. on Comp. Neuroscience, Göttingen, 2014. (PDF)

C. Axenie, M. Firouzi, J. Conradt, Multisensory Integration Network for Mobile Robot Self-motion Estimation, Bernstein Conf. on Comp. Neuroscience, Tübingen, 2013. (PDF)