CURRICULUM VITAE

Cristian Axenie

PERSONAL INFORMATION

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	http://neurorobotics.me, https://github.com/caxenie
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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Former supervisor and professor
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PUBLICATIONS

Journal articles

I. Sugiarto, **C. Axenie**, J. Conradt, FPGA-based Hardware Accelerator for an Embedded Factor Graph with Configurable Optimization, Journal of Circuits, Systems and Computers, 2018. ([PDF](#))

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

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, 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](#))