

Imanol Schlag

CONTACT INFORMATION	IDSIA: The Swiss AI Lab Galleria 2 - Room 224 Via Cantonale 2, 6928 Manno, Switzerland	<i>phone:</i> +41 79 347 52 42 <i>e-mail:</i> imanol@idsia.ch <i>www:</i> ischlag.github.io
RESEARCH INTERESTS	Machine Learning and Artificial Neural Networks for Artificial Intelligence I'm interested in the systematic generalisation of neural networks. To this end, I'm investigating the networks ability to learn structured representations that enable algebraic compositionality. My most recent work augments a recurrent neural network with fast weights such that it learns to reason form natural language question-answer pairs.	
CURRENT ACADEMIC APPOINTMENTS	Doctoral Assistant, IDSIA - The Swiss AI Lab Istituto Dalle Molle di Studi sull'Intelligenza Artificiale Università della Svizzera italiana Faculty of Informatics	September 2016 to present
EDUCATION	Università della Svizzera italiana, Lugano, Switzerland PhD, Artificial Intelligence and Machine Learning, candidate <ul style="list-style-type: none">• Adviser: Professor Jürgen Schmidhuber• Area of Study: Machine Learning with Neural Networks University of St Andrews, St Andrews, Scotland MSc, Artificial Intelligence, August 2016 <ul style="list-style-type: none">• <i>With Distinction</i>• Thesis Topic: <i>Face Recognition from Ancient Roman Coins</i>• Adviser: Professor Ognjen Arandjelović University of Applied Sciences and Arts Northwestern Switzerland, Brugg, Switzerland BSc, Computer Science, August 2015 <ul style="list-style-type: none">• With specialisation in Information Processing and Visualization• Thesis Topic: <i>Face Similarity - Finding Lookalikes from Images</i> Swiss Armed Forces Special Forces Training Center, Isonne, Switzerland Sergeant, Swiss Commando Special Forces, August 2011 <ul style="list-style-type: none">• Basic training and non-commissioned officer school• Instructor and squad leader	
PUBLICATIONS	I. Schlag and J. Schmidhuber. Learning to Reason with Third-Order Tensor Products. Neural Information Processing Systems, 2018. I. Schlag and J. Schmidhuber. Gated Fast Weights for On-The-Fly Neural Program Generation. Neural Information Processing Systems, 2017. Workshop on Meta-Learning. I. Schlag and O. Arandjelovic. Ancient Roman Coin Recognition in the Wild Using Deep Learning Based Recognition of Artistically Depicted Face Profiles. In Proc. IEEE Conference on Computer Vision and Pattern Recognition, 2017.	

TEACHING
EXPERIENCE

Università della Svizzera italiana, Lugano, Switzerland

Teaching Assistant

September 2018 to March 2019

- Assisted **Deep Learning Lab**

Teaching Assistant

September 2017 to March 2018

- Assisted **Machine Learning and Deep Learning Lab**
- Held weekly tutorials of roughly 90 minutes each
- Developed and graded monthly assignments and exams

Swiss Armed Forces, Grenadier-Battalion 30/2, Isonne, Switzerland

Military Instructor

2011 to 2019

- Yearly 4 week repetition course

PROFESSIONAL
EXPERIENCE

Basler Kantonalbank, Basel, Switzerland

Apprentice in Informatics

September 2006 to June 2010

AWARDS

University of St Andrews

- Medal for the best dissertation in Computer Science, 2016

NVAIL Pioneering Research Award

- For *Learning to Reason with Third-Order Tensor Products*. Received at NeurIPS, 2018.

REFERENCES
AVAILABLE TO
CONTACT

Dr. Jürgen Schmidhuber (e-mail: juergen@idsia.ch; phone: +41 58 666 666 2)

- Scientific Director of IDSIA
- Professor of AI at USI
- ◇ IDSIA, Galleria 2, 6928 Manno-Lugano, Switzerland
- ★ *Dr. Schmidhuber is my current doctoral supervisor.*

Dr. Ognjen Arandjelović (e-mail: ognjen.arandjelovic@gmail.com)

- Professor at the University of St Andrews, **School of Computer Science**
- ◇ School of Computer Science, University of St Andrews, St Andrews, KY16 9SX Fife, Scotland
- ★ *Dr. Arandjelović was my MSc thesis supervisor*

Dr. Manfred Vogel (e-mail: manfred.vogel@fhnw.ch; phone: +41 56 202 77 36)

- Professor, Head of degree programme **Master of Science in Engineering** at the FHNW, Director of the **Institute of Data Science** at the FHNW
- ◇ Fachhochschule Nordwestschweiz FHNW, Hochschule für Technik, Bahnhofstrasse 6, CH-5210 Windisch
- ★ *Dr. Vogel was my BSc thesis supervisor*