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## **FDUCATION**

# PhD student in COMPUTATIONAL NEUROSCIENCE

Prof. Wolfgang Maass, HBP since 2018

### MSc in Computer Science WITH DISTINCTION

Graz University of Technology Apr 2017

#### BSC IN COMPUTER SCIENCE

Graz University of Technology Sep 2015

# LINKS

Github: github.com/dsalaj Website: dsalai.com

# SKILLS

### **MACHINE LEARNING**

Tensorflow • Numpy • pandas Matplotlib • NEST

#### **WEB - MOBILE**

Django • PostgreSQL • NodeJS LESS • handlebars • JQuery Android • Vue.js • Flask • etc.

#### **VISUAL**

Photoshop • Illustrator Gimp • InkScape • ATEX

#### **LANGUAGES**

Python • JavaScript • Java Kotlin • C# • etc.

### **DEVOPS - OTHER**

CI and CD with Jenkins • REST API vim • bash • linux • OOP slurm • HPC usage • tmux Agile - Scrum • Unit Testing • TDD

# COMMUNICATION

### **ENGLISH**

fluent

#### **GERMAN**

advanced

Bosnian-Croatian-Montenegrin-Serbian fluent

# **PUBLICATIONS**

"Long short-term memory and learning-to-learn in networks of spiking neurons" G. Bellec\*, D. Salaj\*, A. Subramoney\*, R. Legenstein, W. Maass; NeurIPS (NIPS) 2018

# EXPERIENCE

# **RESEARCH** | DEEP LEARNING & COMPUTATIONAL NEUROSCIENCE

2018-now | Graz, AT | TUGraz IGI

- Research in the domain of recurrent artificial and spiking neural networks
- Collaborations with Intel Loihi team, SpiNNaker team of Manchester University, BrainScaleS team of Heidelberg University

### MASTER THESIS | WORKING MEMORY IN SPIKING NEURAL NETWORKS

2017-2018 | Graz, AT | TUGraz IGI | Prof. Wolfgang Maass | Prof. Robert Legenstein

- "Spike-based LSTM-like Modules in Neural Networks"
- Tensorflow recurrent neural networks

### **L2L** | LEARNING TO LEARN FRAMEWORK

2017 | Graz, AT | TUGraz IGI

- Pypet based gradient-free Optimization framework
- Integration of NEST module SPORE as optimize

### MYTHING.COM | FULL-STACK WEB DEVELOPMENT | DJANGO

2015-2018 | Graz, AT

- 3D printing web platform
- Django PostgreSQL Docker Celery Jenkins AWS Scrapy

#### **TUTORING** | UNDERGRADUATE CLASSES

2014-2015 | Graz, AT | TUGraz ISDS | Prof. Keith Andrews

- Internet and New Media (2014/15 WS)
- Human-Computer Interaction (2015 SS, 2016 SS)

#### **POCKET CODE** | WEB DEVELOPMENT

2014-2015 | Graz, AT | TUGraz IST | Prof. Wolfgang Slany

• Web developer and designer for Catrobat project (developer.catrobat.org)

#### WINNING.AT | WEB DEVELOPMENT

2012-2013 | Graz, AT

• Web development using: handlebars, LESS, NodeJS and SQL.

# OTHER

2018 Human Brain Project (HBP) summit @ Maastricht, Netherlands

- Intel INRC workshop @ Reykjavík, Iceland
- HBP SP9 workshop @ Fürberg am Wolfgangsee
- Learning to Learn workshop @ Fürberg am Wolfgangsee
- 2017 UX Days organizer (with prof. Keith Andrews) uxdaygraz2017.isds.tugraz.at
- 2015 UX Days organizer (with prof. Keith Andrews) uxdaygraz2015.isds.tugraz.at