SAEED SALEHI

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EDUCATION

M.S. in Computational Neuroscience
Bernstein Center for Computational Neuroscience
Oct 2018 – Ongoing Berlin, Germany
Cumulative GPA: 1.0 (equivalent of A / very good)

M.S. in Electrical Power Engineering
Brandenburg University of Technology (B-TU)
Oct 2012 – Sept 2014 Cottbus, Germany
Final GPA: 1.1 (equivalent of A / very good)

B.S. in Electrical Engineering
Power and Water University of Technology (PWUT)
Sept 2005 – Oct 2010 Tehran, Iran

EXPERIENCE

Working student
ML - IDA Lab (Prof. Klaus-Robert Müller)
December 2020 – ongoing Berlin, Germany
Causality and deep anomaly detection in time series

Dynamic Stability Expert & Automator
50Hertz Transmission GmbH
Oct 2014 – Sept 2020 Berlin, Germany
- Dynamic network modeling, control & stability analysis
- Development of a tool-chain for automation and Optimization of dynamic Stability Analysis in Python
- Member of European Connection Network Code WG

TA, Content creator, reviewer & producer
NeuroMatch Academy (NMA)
2020 - Ongoing NeuroMAtch Academy!

Research Assistant
Ministry of Energy, Department of Energy Market
2011 – 2012 Tehran, Iran

Teaching Assistant and Instructor
PWUT & B-TU
2008 – 2014 Tehran, Iran
TA for *Linear Control Systems, Electrical Circuits, Electromagnetic and Power Electronics* @ PWUT
Instructor of *CYME-Dist, PSCAD & PowerFactory*

RESEARCH INTERESTS

- What drive our **attention**, **questions** and **exploration**; and How are they optimised/integrated?
- **Deep** but **explainable**, **Causal**, and **robust** learning
- Machine learning *for and from* Neuroscience

LAB ROTATIONS

Prof. Richard Kempter's Lab
Modeling ripple oscillations in networks of delayed inhibitory pulse-coupled oscillators

Prof. Henning Sprekeler's Lab
Modeling motor cortex by training and analyzing recurrent neural networks

Prof. Wolf-Julian Neumann's Lab
EEG and ECoG signal processing for closed loop deep brain stimulation with focus on waveform

PUBLICATIONS

- H. Urdal et al., *"High Penetration of Power Electronic Interfaced Power Sources and the Potential Contribution of Grid Forming Converters"* ENTSO-E joint technical report, 2019
- J. Weidner, R. Bauer, S. Salehi, *"Control strategies of phase-shifting transformers in long term network development"*, International ETG Congress – Die Energiewende, Bonn, 2015
- M. S. Ghazizadeh, S. Salehi, and A. Shahmohammadi, *"Design of Power System Stabilizer based on Anchoring Zeros"*, accepted in Eighth IEEE International Conference on Control & Automation, 2010

STRENGTHS

Dynamic network modeling, simulation and analysis
Probabilistic programming and ML | Control theory
Eager to learn & develop interactive tutorials

PROGRAMMING LANGUAGES

Scientific Python+PyTorch and Julia
C++, VBA and Qt

NATURAL LANGUAGES

Persian
English
German

A more elaborate but less "stylish" CV: ssnio.github.io/about/