DARIO BOLLI

ETH Zurich Graduate, Machine Learning, Signal Processing and Neuroscience

CONTACT

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Dario Bolli

homepage

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Swiss, French

LANGUAGES

French: Native
English: Fluent
German: B2

SKILLS

Python	5+ yrs
Microsoft Office	5+ yrs
C, C++	2+ yrs
Machine Learning	3+ yrs
SQL, spark, AWS	1+ yrs
HTML,CSS	1+ yrs

ASSOCIATIVE ACTIVITIES

EPFL Formula Student: Telemetry implementation for the electric car using LabView and a sbRIO

Coaching EPFL: Event organization

HOBBYS

Ski/Ski touring
Basketball
Kitesurf

WORK EXPERIENCE

Research Data Scientist — **Present**
Champalimaud Foundation, Lisbon

- At the Neural Circuits Dysfunction lab, I am responsible for the analysis of calcium imaging and behavioural data to uncover biomarkers of dystonia.

Research Intern — **Feb - Jul 2022**
IBM Research, Zurich

- At the Neuromorphic computing lab, my role was to research ways to reduce the computational cost of Convolutional Neural Networks by exploiting Hyper-dimensional computing properties. A superposition approach was proposed allowing to reduce by 2 the number of operations needed for an image classification task while maintaining a reasonable accuracy.

Test coder Pisa — **Jun - Jul 2021**
SRED, Geneva State

- Worked at the Geneva State's Educational Research Department for the OECD's Programme for International Student Assessment. My role involved assessing the education level in mathematics and science of Swiss students.

Assistant Engineer — **Jun - Sep 2017**
Triform SA, Lausanne

- Engaged in field-based stream measurements and modelling.

EDUCATION

Research Assistant — **2022 - 2023**
Imperial College London - United Kingdom

Master - Signal Processing and Machine Learning — **2020 - 2023**
ETH Zurich - Switzerland

Bachelor - Electrical Engineering — **2017 - 2020**
Ecole Polytechnique Federale de Lausanne - Switzerland

PROJECTS

Master Thesis - Computational Model of Motor Learning in a Real-World Task — **May - Nov 2023**
Tools: PyTorch, Scikit-learn, Pandas, Numpy, Matplotlib

- Developed computational models that effectively capture key aspects of the underlying mechanisms of sensorimotor adaptation in real-world tasks, allowing to address the detection and rehabilitation of neurodegenerative diseases.

Deep Hedging — **Sep - Dec 2021**
Tools: Tensorflow, PyTorch, Pandas, Numpy, Matplotlib

- Implemented several deep learning algorithms for time-series forecasting to enhance financial risk management strategies.

Deep Learning for Autonomous Driving — **Feb - Jun 2021**
Tools: PyTorch, Pandas, Numpy, Matplotlib

- Multi-task learning for semantics and depth estimation on images collected by 2 cameras mounted on a car, and 3D Object Detection from a Point Cloud gathered by a Lidar.