

ADRIAN LÖWENSTEIN

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French Nationality | Born 21.11.1993

TECHNICAL SKILLS

Certification Azure Data Engineer Associate [DP-200 + DP-201]

Programming Python [Pytorch, Keras, Pandas, Spark, Scikit-Learn, Matplotlib, ...] • C • C++ • Matlab • SQL • Linux [bash]
Devops Practices [Git, Gitlab CI/CD] • Javascript [D3.js]

Computer Science Classical Machine Learning • Deep Learning • Natural Language Processing [Transformers, Spacy]
Time Series • Computer Vision • Reinforcement Learning • Probabilistic Inference [Gaussian Processes, Bayesian Opt., VAE]

Electrical Engineering • Model Predictive Control • Control Theory • Computational Optimisation
Electrical Grid Control & Modelling • Electricity Market • Energy Storage • Energy Generation

PROFESSIONAL EXPERIENCE

Quantmetry

Data Scientist

Paris, France | Sept 2019 - Today

Working as a Data Scientist consultant for various projects and companies. Developing solutions and interacting extensively with clients.

NLP : Developing, for a medical news company, tools enabling the profiling and clustering of doctors by using NLP techniques and dimension reduction on the content of the media.

NLP : Creation of supporting material, practical exercises and training given to other Data Scientists on latest NLP subjects.

Time Series and Supply Chain : Developing, for a wholesaler, of a tailored solution in supply. Including a sales prediction module at the SKU level, and a supply optimisation module. Using Deep Learning approaches and constrained optimisation methods.

Data Engineering : Developing infrastructures for the French Ministry of Health in support of the internal Covid-19 Data platform. Including Gitlab CI/CD pipelines, Docker runners, sftp servers.

Computer Vision : Developing, for a fashion startup, image segmentation models by using **Computer Vision** techniques and **Deep Learning** on Pytorch. Deployed with Django APIs on Google Cloud Platform.

Ecole Polytechnique Fédérale de Lausanne | EPFL

Teaching Assistant

Lausanne, Switzerland | 2015 - 2018

Working as a Teacher Assistant for several Professors during my studies at EPFL

Commissariat à L'Energie Atomique | CEA

MSc Internship

Le Bourget du Lac, France | June 2016 - Aug 2016

Internship at *Institut National de l'Energie Solaire* (INES) - Development and validation of energy management strategies in Smart Grids. Study of battery models and implementation in a battery simulator. Evaluation on a Solar Microgrid of battery charging strategies.

Airbus Helicopters UK

Internship

Oxford, United Kingdom | June 2011 - July 2011

Introductory Internship done between the French Baccalaureate and the beginning of my studies.

EDUCATION

Imperial College London

MSc in Computing | **Machine Learning** | obtained with Merit

London, United Kingdom | Sept. 2019

Ecole Polytechnique Fédérale de Lausanne | EPFL

MSc in Electrical Engineering | **Energy & Smart Grids Science** | Average : 5.31 / 6.0

Lausanne, Switzerland | July 2018

Eidgenössische Technische Hochschule Zürich | ETHZ

Exchange in 3rd Year of BSc

Zürich, Switzerland | Aug. 2015

Ecole Polytechnique Fédérale de Lausanne | EPFL

BSc in Electrical Engineering | Average : 4.8 / 6.0

Lausanne, Switzerland | Feb. 2016

SOFT SKILLS

Qualities Reasoning • Analysis • Adaptability • Curiosity • Creativity • Team Spirit

Language French [Native] • English [C1] • German [B2]

EXTRA CURRICULAR

Associative EPFL Electrical Engineering Students Association • EPFL Instagram Student Photographer [@epflstudents]

Others Photography [Digital, Analog] • Video Editing • Travel Biking • Hiking • Skiing • Discovery Travelling [Peru, China, Iran]

DATA SCIENCE PROJECTS

Gaussian Processes for Optimal Sensor Position

Imperial College, London | Summer 2019

Master Thesis

Employment of a **Gaussian Process** model to calculate the optimal spatial positioning of sensors to study and collect air pollution data in big cities. Validation with Data Assimilation. Big Data Problem. Imperial College London **Data Science Institute**.

NLP Challenge - SemEval 2019 Task 6

Imperial College, London | Spring 2019

Codalab Competition |  [Github Repository](#)

Classification of Offensive Tweets. Globally **obtained the 5th best results**. Use of state of the art methods such as GRU, LSTM, RNN or CNN.

Tweet Awareness - Data Analysis

EPFL, Lausanne | Autumn 2017

Group Project |  [Data Story](#)

Data Analysis Project on how to measure the **awareness** of people about dramatic events around the world and how to correlate it to **cultural distances**. Data **extraction** from twitter using Python (Selenium, BeautifulSoup). Data **analysis** using Python (Pandas, Sklearn). Data **visualisation** using Javascript (D3.js). Group Project created in the context of the Applied Data Analysis course of Pr. R. West.

SMART GRID PROJECTS

Provision of Multiple Services to the Grid with Plug-In-Electrical-Vehicles

EPFL, Lausanne | Spring 2018

Master Thesis |  [Poster of the Project](#)

Using Electrical Vehicles for providing services to the grid, such as Frequency Regulation. Optimisation problem using real transportation data to determine the regulation capacity for the electricity markets. Using Matlab, Gurobi solver and YALMIP. Supervised by Pr. C. Jones.

Robust restoration in DG-incorporated distribution networks

EPFL, Lausanne | Autumn 2017

MSc Semester Project

Formulation and implementation of the **Restoration Problem** in Electrical Grid, a Mixed-Integer-Non-Linear Optimisation Problem. Implementation using Matlab and the Gurobi solver. Supervised by Dr. R. Cherkaoui.

ETR applied to Fault Detection in Power Networks

EPFL, Lausanne | Spring 2017

MSc Semester Project |  [Conference Paper](#)

Investigating the physical application of the Electromagnetic Time Reversal (ETR) principle, in the context of fault detection in **Electrical Grids**. Supervised by Pr. F. Rachidi. Three weeks residency spend at **Amir-Kabir University in Tehran** for this project.

H2O2 Fuel Cell and Electrolyser Analysis and Monitoring

EPFL, Lausanne | Spring 2016

BSc Project |  [EPFL Microgrid](#)

Implementation of a **Monitoring System** (in LabView) for a Fuel Cell and Electrolyser in the context of a Lab Microgrid. Supervised by Pr. M. Paolone.