EDUCATION

APPLIED DATA SCIENCE: MACHINE LEARNING
EPFL EXTENSION SCHOOL
2020 – 2020

MSc in NEUROSCIENCES
Grade: 5.52
UNIVERSITY OF GENEVA
2017- 2019

BSc in PSYCHOLOGY
UNIVERSITY OF LIEGE
2013-2016

SKILLS

TECHNICAL SKILLS

Python 3, R, SQL
Deployment frameworks: Docker, Heroku, PEP8 with Black, PyTest
Web framework: Flask
GUI framework: Tkinter
Data science stack: Pandas, Numpy, Stat, SciPy
Data visualisation stack: Matplotlib, Seaborn, Plotly, Dash
Machine learning & Deep learning stacks: Sklearn, Tensorflow, Keras, Pytorch, Stable-baseline3

SOFT SKILLS

Communication – 4 years as a scoutmaster, supervising 60 children from 8 to 17 y/o
Teamwork - team manager in an interdisciplinary team composed of researchers, teachers, engineers
Continuous learner – Self-taught learner in reinforcement learning

LANGUAGES

French (native) • **English** (working proficiency) • **Spanish** (limited working proficiency)

XAVIER LINCE

GitHub • LinkedIn • Website
+32495735775 • xavier.lince@gmail.com • Europe/Remote

TECHNICAL PROJECTS

OUR WORLD DATA WEB APPLICATION – Github
• Plotly visualisations on relevant world datasets integrated into a multi pages Dash web application • Dockerized and deployed via Heroku • Written according to best practices with Black formatter

CATS VS DOGS CLASSIFIER WEB APPLICATION – Github
• CNN model with 98% accuracy • Integrated into a flask application • Dockerized and deployed via Heroku • Written according to best practices with Black formatter

PREDICTING AUTISM WITH BEHAVIOURAL & fMRI DATA – Github
• Used of the complete data analysis stack to collect, analyse and visualize the data • Learned different fMRI analysis python frameworks • Defended as Capstone project in front of a jury at the EPFL

WORK EXPERIENCE

DEEP REINFORCEMENT LEARNING INTERNSHIP

Supervised by Dr. Solange Denervaud
2021- 2022
Learned and implemented all models by myself to start the project which aims at testing different kinds of feedbacks given to the agent to assess their learning performance.

SNF SCIENTIFIC COLLABORATOR

Scientific collaborator on creativity for the SNF Spark initiative at University of Teacher Education (Valais)
2020- 2021
Managed research project • Creation of a gamified brainstorming in a web application • Design of the study to evaluate its impact • Data collection with brainstorming session - management of the groups • Data cleaning and EDA in Python • Statistical analysis (ANOVA) in R Studio.

GRADUATE RESEARCH ASSISTANT

Supervised by Prof. Didier Grandjean and Dr Damien Benis (NEAD Lab)
2017-2019
Clarified and refined a research question • Conducted recruitment and data collection using standardised tests and EEG • Statistical analysis on RStudio to draw relevant conclusions on memory • Pre-processed the EEG dataset and analysed on MATLAB to realize Event-related potential and Time-Frequency analysis • Redacted the thesis "Testing the Efficacy of the Mind Palace" (final grade:6).

INTERNSHIP @CONNECTOMICS LABORATORY

Supervised by Prof. David Sander (E3 Lab) and Dr. Solange Denervaud
2019
Realisation of Independent Component Analysis on fMRI datasets in MATLAB to assess if the school environment impacts the development of differences in connectivity between brain regions.