

ACHILLE BAUCHER

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EDUCATION

Erasmus Exchange Semester

University of Oslo

📅 January 2021 – June 2021

📍 Oslo, Norway

- Probabilistic Graphical Models, Computational Statistics, Statistical Model Selection

Engineering Cursus in Applied Mathematics and Computer Science

Polytech Sorbonne

📅 2016 – Now

📍 Jussieu, Paris

- Analysis, Modelisation, Optimisation, Statistics, Algorithmic, Computing, Data Bases, Graph Theory, High Performance Computing

Baccalauréat S Physique-Chimie, Mention Bien

Lycée Hoche

📅 Juin 2016

📍 Versailles

INTERNSHIPS

Dimension Reduction and Clustering of letters from Assemblée Nationale

Python ScikitLearn NLTK Matplotlib Regex

LIP6

📅 June 2020 – July 2020 📍 Paris

- I applied and compared different dimension reduction methods to short letters from deputies to ministers.
- I also applied various clustering methods to link deputies.

Intern Computing Engineer

Python Scrapy Django Git Regex

Mooveat (Intermediary local food network)

📅 June 2019 – July 2019 📍 Paris

- Web Scraping, Dev with Django
→ Quick adaptation to new computer tools
- Task responsibility, from its conception to its development, documentation
→ Initiative, decision, rigor and clearness
- Teamworking, listening

SCIENTIFIC PROJECTS

Transfer learning for Random Forests

Python ScikitLearn LaTeX

Polytech

📅 December 2020 – January 2021

📍 Jussieu, Paris

- We implemented and studied algorithms of transfer learning for random forest, applied to a hand gesture classification task

Optimisation of Enumeration of Steiner Trees

Python Plotly Matplotlib LaTeX

LIP6

📅 September 2020 – January 2021

📍 Jussieu, Paris

- Designed a new algorithm avoiding degenerate topologies
- Created an interactive visualisation platform

NLP and statistical Analysis of letters from Assemblée Nationale

Python Pandas Matplotlib Spacy LaTeX

Metriq (Data Analysis) & Proches (Communication of influence)

📅 September 2019 – Today

📍 Jussieu, Paris

- We analysed a dataset of letters written by french deputies to ministers.
- We used NLP techniques and basic statistics to detect over-representations, anomalies and time series extremas.
- We created a interactive platform to visualize our results.

Time series analysis and classification

R Git LaTeX

Kantar (Measures and consulting for ads)

📅 January 2019 – May 2019

📍 Jussieu, Paris

- We derived equations to represent the quantitative evolution of several populations in a context of competition, reproduction and mutation.
- We deduced some interesting thresholds mechanisms about the domination of a population depending on the advantage brought by a mutation

Mathematic Modelling of Natural Selection phenomena

Matlab LaTeX

Laboratory of Computational and Quantitative Biology

📅 September 2018 – January 2019

📍 Jussieu, Paris

- We derived equations to represent the quantitative evolution of several populations in a context of competition, reproduction and mutation.
- We deduced some interesting thresholds mechanisms about the domination of a population depending on the advantage brought by a mutation

ASSOCIATIVE EXPERIENCES

Co-founder - Co-president

Lupalytech

📅 July 2019 – Today

📍 Jussieu, Paris

- Environmental awareness and ecological workshops organization
- Recruiting, conception, distribution and supervision of projects

Co-founder and Chief of Rafisto workshop

Enactus Polytech Sorbonne

📅 September 2018 – May 2019

📍 Jussieu, Paris

- Organization of repair workshops and awareness against planned obsolescence, partnership with associations
→ Initiatives taken to answer the problem we analysed

Member and Patrol Chief

Association of the Guides and Scouts of Europe

📅 September 2011 – July 2016

📍 Versailles, entire France

- Organization of diverse projects : buildings, camps
→ Commitment, anticipation, creativity

- Chief of a team with eight members during one year
→ I took decisions, assigned tasks and motivated people
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COMPUTING

Python Pandas, Matplotlib, Spacy
C++ Darwinian simulation OOP
C Network game, Graph traversal
R Regression and classification
Matlab Optimisation, Fourier analysis

LANGUAGES

French
English
Chinese

