



25 years old
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Education

- 2021-present **Ph.D. in Human-Computer Interaction**
Paris-Saclay University
- 2018-2020 **Master in Mathematical Engineering and Biostatistics** - *with high honours*
Paris-Descartes University (Statistics, Machine Learning, R, Python)
- 2018-2019 **University Degree in Creation and Development of Innovative Start-ups**
Paris-Saclay University (Project management, Fundings, Business plan)
- 2014-2018 **Bachelor's Degree in Mathematics** - Modeling Specialization
Paris-Saclay University (Analysis, Algebra, Projects with Python)

Work experience

Teaching Assistant - Winter School (03/2023-04/2023) - *Paris-Saclay University, Saclay, France*

- ❖ Class of M1 students where they develop the skills to read, criticize and summarize research publications.

Ph.D. Student - ILDA team (10/2021-present) - *Paris-Saclay University, Saclay, France*

Thesis: « Post-WIMP Interactive Data Manipulation » under the supervision of E. Pietriga and C. Appert

- ❖ Elicitation study, semi-structured and structured interviews
- ❖ Design of a gesture set for multitouch and pen inputs
- ❖ Prototype of an interface on a Wacom tablet to evaluate the effectiveness and the collaborative potential of the gesture set for data wrangling tasks (javascript, D3.js)

Data Scientist Intern - INGIMA Lab (02/2020-03/2020 and 09/2020-12/2020) - *Paris, France*

- ❖ Project design : definition of objectives, organization of tasks, assessment of risks and constraints, planning of project monitoring (PowerPoint, Gantt Project, Teams)
- ❖ Manufacture of a prototype equipped with stereovision sensors (RaspberryPi)
- ❖ Creation of a database and training of an object detection AI (Labellmg, TensorFlow)
- ❖ Development of object detection, tracking, and 3D position estimation modules (Python, OpenCV)

Student-Teacher (EAP2) - Mondétour middle school (01/2016-07/2017) - *Les Ulis, France*

- ❖ Observation of teaching methods, preparation of Mathematics lessons and quizzes, dispensing of lessons, correction of quizzes, individual support throughout the school year

Other activities

Creartathon22 (Creative Hackathon) participant (07/2022) <https://creartathon.com/>

- ❖ Collaborative work with a designer, an artist, an AI engineer and an InfoVis engineer to create an intelligent interactive object in 5 days
- ❖ Development of functions for the AI and motor loop of the artifact (Python, Tensorflow, Arduino)
- ❖ Displaying of the work at Le BiS - ENSCI, 75012 Paris

LISN « PhD days » organizer and participant (06/2022)

- ❖ Organization of the venue, conception of the program and hosting during the event
- ❖ Presentation of my first year of thesis work in 5 minutes

Math Student Council treasurer (05/2017-05/2019)

- ❖ Bookkeeping, budget forecasting and optimization
- ❖ Organization of events, discussions with the university and external entities to obtain subsidies

Logosfer : Web application for interactive annotation on debate videos (02/2023-present)

- ❖ Workshop with rhetoric experts, design and development of an interface to annotate and visualize data on debate videos from youtube links (javascript, D3.js)

Cryptics : R library for real-time cryptocurrency analysis (03/2021)

- ❖ Development of functions for the collection, manipulation and visualization of time series and their metadata (R, Tidyverse, rvest, tseries, xts, dygraphs)
- ❖ Creation and maintenance of a free access R library (devtools, Git)

Statistical Analysis of the Harmonic Tools in W. A. Mozart's Piano Sonatas (02/2021)

- ❖ Contribution to a scientific study conducted by a double-degree student at the CNSMDP: participation in the creation of a database, univariate analyzes, statistical tests, regression models (R, Tidyverse)

Terpsichord: Computer Vision and AI tool for music production (01/2021-present)

- ❖ Implementation of a manual gesture detection module, design and development of data processing and interpretation modules, and AI-assisted music generation (OpenCV, TensorFlow)
- ❖ Development tests on an embedded system (RaspberryPi, Shell Unix)

Alcoach : Mobile application in the health sector (08/2018-present)

- ❖ Development of the mathematical model and algorithms for the main functionality (Python)
- ❖ Production of a scientific publication « GSBU Model : A New Way to Predict the Evolution of Blood Alcohol Concentration in the Human Body »

La Clef des Champs: Original soundtrack for a short film (10/2018)

- ❖ Composition of 8 tracks with several inspirations, including Johann Sebastian Bach and France Gall
- ❖ <https://lordaaron.bandcamp.com/album/la-clef-des-champs-ost>

La Plume et la Pierre: Original soundtrack for a medium-length film (12/2016)

- ❖ Composition of 28 tracks in an experimental style, mixing synths, brass, organ and strings
- ❖ <https://lordaaron.bandcamp.com/album/la-plume-et-la-pierre-ost>

Skills

Programming languages **Javascript** (D3.js, p5.js), **HTML, CSS, Python** (OpenCV, TensorFlow, Scikit-learn, Pandas, Librosa), **R** (Tidyverse, Shiny, rvest, devtools)

Creative softwares Blender, Logic Pro X, Ableton Live, Audacity, LMMS, Final Cut Pro, iMovie, GarageBand

Operating systems Linux, Mac OS, Windows, RaspberryPi OS

Certifications **Machine Learning**
Stanford Online High School
Data Manipulation at Scale:
Systems and Algorithms
University of Washington

Information Visualization: Programming with D3.js
New York University
HTML, CSS and Javascript for Web Developers
Johns Hopkins University

Languages French : native tongue
English : fluent / B2+
(TOEFL 2019 : 93/120)

Hobbies Harpsichord, piano, music writing, DJ, concerts, cinema