LEO MOULIN

Name
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Github
github.com/moulinleo

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ENGINEER

- **2 years as R&D Engineer**
- **1 year Technical Engineer**
- **Audio Signal Processing**
- **Python Algorithm Development**
- **Master in Civil Engineering (Electronics & Telecommunications)**
- **Bilingual in French & English**

PROFESSIONAL SKILLS

- Audio Signal Processing
- Data Science stack (Python, SQL, R)
- Machine Learning, Feature Statistical modelling
- Problem-solving skills
- Critical-thinking and Result-oriented

EDUCATION

2023-2024 **Specialized Master in Data Science, Big Data**   **ULB** **Université Libre de Bruxelles**

- Data Mining
- Deep Learning
- Time Series Analysis
- Big Data Management

https://www.ulb.be/en/programme/ms-bgda

2016-2019 **Master in Electrical Engineering - Option Information and Communications Technology Systems**   **ULB** **Université Libre de Bruxelles**

- **Telecommunication** (Network Protocols, Communication channels, Modulation, Coding, Mobile and Wireless Network)
- **Digital Signal Processing** (Signal Theory)
- **Electronics** (Analog Electronics, Microprocessor architecture, Digital
- **Information and Communication Technology Systems** (Machine Learning, Image Processing, Computer Vision),
- **Final year thesis** "3D Reconstruction in Multi-Cameras systems" *(Computer vision, Optimizations problems, C++, PCL)* published in IEEE

https://www.ulb.be/en/programme/ma-irel

2012-2016 **Bachelor in Civil Engineering**   **ULB** **Université Libre de Bruxelles**

- Electronics & Telecommunications

WORK EXPERIENCE

**mar 2021-
mar 2023**

R&D Engineer in Audio Processing

- Audio Signal Processing
- Algorithm Development in Python
- Research and Development in the field of audio analysis
- Exploration, Development and validation of new algorithms in Python
- Audio Feature Extraction

SoundTalks (Leuven)

**sep 2019-
aug 2020**

Technical Engineer

- Delivery of Services & Products for telecommunications customers
- Installation and Commissioning (Software, Hardware, IP, Planning)
- Support and Maintenance
- Fixed Network technologies (Access Optical, FTTH, SIP,.)

Huawei Technologies Ltd (Brussels)

**oct 2018-
dec 2018**

Orchard worker

- Kiwi fruit thinning in New Zealand

Vineco (Hastings, New Zealand)

ACADEMIC PROJECTS

2024 — **Anomaly Detection and Fault Prediction in railway service**
Data Exploration, Feature Engineering, Model Selection — **MS-BGDA**

2018 — **Voice isolation with a CNN in Python**
Deep learning, audio signal processing, Tensorflow — **MA2**

2018 — **Simulation of a satellite communication chain**
Matlab, modulation, coding, filtering — **MA1**

2018 — **Design of a water level control system in Matlab**
System identification, PID controller, Simulink — **MA1**

PROGRAMMING & SOFTWARES

Python (Pandas, Scikit-Learn, Pytorch, Tensorflow, Librosa)
Version Control (Git)
Linux (Scripting)
SQL (MongoDB, PostgresDB)
C++ (Point Cloud Library)
Matlab, R, JupyterLab, Arduino

LANGUAGES

French - Native Language
English - Professional Working Proficiency
Dutch - Basic

PUBLICATION

L. Moulin, S. Rogge, and A. Munteanu, *Joint registration of multiple point sets with refinement,* in 2019, IEEE International Symposium on Multimedia (ISM), San Diego, CA, USA

https://www.computer.org/csdl/proceedings-article/ism/2019/560600a072/1gFJdf4ARlm

INTERESTS AND ACTIVITIES

Mountain hiking
IA Research, Applications of Machine Learning
Board game passionate