

Yann BAYLE

Address: 11, allée des Peupliers, Appartement 3, 33400 Talence, France
E-mail: bayle.yann@live.fr
Website: <http://yannbayle.fr>
Phone Number: +33 646 152 167

Career Objective

- Graduating my Ph. D. in Information Technology in France in September 2018
- Looking for a post-doc opportunity in Machine Learning or Digital Sound Processing or Big Musical Data or Music Information Retrieval in Montpellier

Education

- 2015-2018 **Ph. D.** studies in **Machine Learning, Digital Sound Processing, Big Musical Data and Music Information Retrieval**
Under the direction of **Pierre Hanna** and **Matthias Robine**
LaBRI, CNRS, Bordeaux University, France
- 2012-2015 **Master's Degree** of Engineering Diploma in **Sound Processing**
Graduated with **high honors** (3th out of 78)
ENSEIRB-MATMECA Engineering School, Bordeaux, France
- 2010-2012 University Technology Diploma in **Electrical Engineering**
Graduation with **high honors** (2nd out of 80)
University Institute of Technology, Montpellier, France
- 2010 High School Diploma with concentration in **Math and Physics**
Graduation with **highest honor**
Levasseur High School, La Reunion, France

Languages

- French** Native speaker
English Excellent working knowledge (**IELTS**: 7/9 and **TOEIC**: 920/990)
German Spoken and written
Spanish Basic understanding

IT Skills

- Languages** Python, C, C++, Java, HTML, CSS, Javascript, SQL, Bash, Objective-C, LaTeX
Apps MatLab, LabView, MPLab, XCode, CodeBlocks, Weka, Audacity, Hadoop/Spark
OS Unix (Ubuntu and OSX), Windows (XP, Vista and Seven)

Working Experiences

- 2015 Five-month internship under the supervision of **Laurent Demany**
CNRS, National Center in Scientific Research, Bordeaux, France
- Mission Tools development in **Matlab** for testing and analyzing psychoacoustical events
Defined and implemented experiment to test a dozen of human listeners
Experiments and results have been written into an article [3] with an IF of 2.9

Partnerships

	2012	Three-month internship FEELTUNE, a French SME of 5 employees based in Nîmes, France, specializing in standalone groove machines
	Mission	Design of a virtual sound synthesizer using Microsoft Visual C++ VST compatible app developed using additive synthesis
	2012-2015	Intermittent worker CYBERCOM SONO, a French growing SME, for musical events, Céret, France Sound engineer
	Mission	Planning the sound of different stages for local music band
	2017	Institutions Department of Software Engineering of the Charles University in Prague in the Czech Republic, IT4Innovations of the University of Technology in Ostrava in the Czech Republic, Recisio and Karfun in France.
	Role	Instigator of the project and the partnership
	Question	Which parameters are involved for cover song identification?
	Outcomes	An article [4], a musical dataset, reproducible source code and an IEEE award for being in the Top 6 Papers at the International Symposium on Multimedia Content-Based Multimedia Indexing that displays a 22% acceptance rate.
	2016	Companies Deezer and Simbals in France and Musixmatch in Italy
	Role	Instigator of the project and the partnership
	Question	Which parameters of signal processing and machine learning algorithms are relevant for classification in big datasets unevenly distributed among tags?
	Outcomes	Three articles [1, 2, 5], a big musical dataset and reproducible source code
	2014	Institutions SCRIME (Creation and IT Research Studio) CNRS
	Project	Development of an Android serious game app Rhythm and Percussion practice for music school students
	Role	Sound Processing supervisor and Project Manager of 4 people
	2013	Institutions Thales University of Bordeaux ENSEIRB-MATMECA
	Project	Analysis and automatic classification of biomedical signals (EEG and ECG) in order to detect a cardiac disease 2014 Thales Project Challenge winner
	Role	Sound Processing supervisor and Project Manager of 8 people

Miscellaneous

Abroad trip	United States of America (2 months) Ireland (6 weeks) China (1 month) Canada (1 month)
Sports	Hiking Swimming Handball
Reading	Science-fiction (King, Asimov, Hobb, Herbert) Music (Scores, History, Theory)
Arts	Guitar Didgeridoo

In peer-review journals

- [1] **Y. Bayle**, M. Robine and P. Hanna, 2018. Toward faultless content-based playlists generation for instrumentals. Submitted to Journal of New Music Research. IF = 1.122.
<https://arxiv.org/abs/1706.07613>
- [2] **Y. Bayle**, M. Robine and P. Hanna, 2018. SATIN: A persistent musical database for music information retrieval and a supporting deep learning experiment on song instrumental classification. Springer Multimedia Tools and Applications. IF = 1.530.
<http://dx.doi.org/10.1007/s11042-018-5797-8>
- [3] L. Demany, **Y. Bayle**, E. Puginier and C. Semal, 2017. Detecting temporal changes in acoustic scenes: The variable benefit of selective attention. Hearing Research, 353, pages 17–25. IF = 2.906.
<https://doi.org/10.1016/j.heares.2017.07.013>

In peer-reviewed conferences proceedings

- [4] **Y. Bayle**, L. Maršík, M. Rusek, M. Robine, P. Hanna, K. Slaninová, J. Martinovic et J. Pokorný, 2017. Kara1k: A karaoke dataset for cover song identification and singing voice analysis. In Proceedings of the 19th IEEE International Symposium on Multimedia Content-Based Multimedia Indexing, pages 1–8. Taichung, Taiwan. Acceptation rate: 21.82%. Honorable mention for being a Top 6 Paper.
<http://ieeexplore.ieee.org/document/8241597/>
- [5] **Y. Bayle**, P. Hanna and M. Robine, 2017. SATIN: A persistent musical database for music information retrieval. In Proceedings of the 15th International Workshop on Content-Based Multimedia Indexing, pages 1–5. Florence, Italie.
<https://link.springer.com/article/10.1007%2Fs11042-018-5797-8>
- [6] **Y. Bayle**, P. Hanna and M. Robine, 2016. Classification à grande échelle de morceaux de musique en fonction de la présence de chant. In Proceedings of the 10th *Journées d'informatique Musicale*, pages 144–152. Albi, France.
<http://jim2016.gmea.net/?ddownload=450>

- Laurent Demany** Research director, Bordeaux, France
laurent.demany@u-bordeaux2.fr
 +33 621 226 590
 +33 557 571 651
- Pierre Hanna** Lecturer, Bordeaux, France
pierre.hanna@labri.fr
 +33 619 232 254
- Matthias Robine** Lecturer, Bordeaux, France
matthias.robine@labri.fr
 +33 540 003 821

More references available upon request