Wassim Bouaziz

Computer Science & Machine Learning Research

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wesbz

Education

2019 - 2020 **MSc Mathematics, Vision, Machine Learning, *ENS Paris-Saclay*,** Paris, France.
Classes : *Convex Optimization, Medical Imaging, Graphs in Machine Learning.*

2018 - 2020 **MSc Machine Learning, Information,Content, *Université Paris-Saclay*,** Orsay, France.
Classes : *Deep Learning, Voice Recognition, Reinforcement Learning, Learning Theory.*

2016 - 2019 **MSc in Engineering & Major in Computer Science, *CentraleSupélec*,** Gif-sur-Yvette, France.
Top school in France in Computer Science and Electrical Engineering. GPA : 3.9 / 4.0.
Classes : *Algorithmic, Statistics, Signal Processing, Logic, Quantum Physics, Economy.*

2014 - 2016 **Preparatory program for Grandes Ecoles,** *Lycée Blaise Pascal*, Orsay, France.
Two-year undergraduate preparatory studies for entrance examination to French Engineering Schools.

Experience

July – Nov. 2020 **Research Intern,** *Facebook AI Research*.
Working on data augmentation techniques to **improve robustness** of Speech Recognition systems to noise. Under supervision of Gabriel Synnaeve, Gilad Avidov, Awni Hannun & Ronan Collobert.

April – Aug. 2019 **Research Intern,** *ENS Paris*, France.
Worked in the **CoML** (Cognitive Science & Machine Learning) team for **classification** of child / adult directed speech for a worldwide child language analysis project (ACLEW).

Oct. 2018 – Apr. 2019 **Graduate Research Assistant,** *CentraleSupélec*, France.
Worked with two professors and a PhD student from LRI (Université Paris-Sud) on an **FPT algorithm** for **vertex minimum cuts counting** in graphs with state of the art complexity.

June – Aug. 2018 **Embedded Software Intern - AI,** *Snips (now Sonos)*, Paris, France.
Developed **real time speech recognition** applications with a **< 30% CPU load** by using Snips' technology on a Cortex-M7 **microcontroller**.

Publications

On the parameterized complexity of counting small-sized minimum (S,T)-cuts. *P. Bergé, W. Bouaziz, A. Rimmel, J. Tomasik.*

pyannote.audio: neural building blocks for speaker diarization. *H. Bredin, ..., W. Bouaziz.* **ICASSP 2020**, *IEEE International Conference on Acoustics, Speech, and Signal Processing.* Open source toolkit for speaker diarization. https://arxiv.org/abs/1911.01255

Speaker detection in the wild: Lessons learned from JSALT 2019. *P. Garcia, ..., W. Bouaziz, E. Dupoux.* https://arxiv.org/abs/1912.00938

Projects

Dec. 2018 – Jan. 2019 **Graph Attention Networks to solve the Travelling Salesman Problem.** *Academic Project. Supervised by Dr. Petar Veličković.*

June – July 2019 **Jelinek Summer Workshop on Speech and Language Technology.** *Research Project - ÉTS Montréal - "Speaker Detection in Adverse Scenarios with a Single Microphone".*

Skills

Technical skills

Prog. Language	Python 3, Bash, C, C++, MATLAB, Java
Libraries	NumPy, SciPy, PyTorch, librosa, scikit-learn, Tensorflow, OpenAI Gym
Web	HTML, CSS, JS, Flask, SQL
Miscellaneous	Algorithmic, Unix, git, RegEx, Information Security, Graphical design, video editing, LaTeX

Language

French	Native speaker
English	Fluent (TOEFL ITP : 637/677)
Spanish	B2
Arabic	A1+