

Azal LE BAGOUSSE

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French, Born 2002
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EDUCATION

Master 2 ATIAM (Acoustique, Traitement du signal et Informatique Appliqués à la Musique)

09/2024 – Present Ircam, Télécom Paris, Sorbonne Université, Paris, FR
Acoustics, Signal processing, Machine learning, Music, Psychoacoustics.
One-month project on audio source separation (voice and instruments).

Master 1 Mechanical Engineering, Acoustics branch

09/2023 – 08/2024 Sorbonne Université Sciences (FSI), Paris, FR
Continuum mechanics, Signal processing, Waves and Vibrations, Room acoustics.
Awarded the Prix des Anciens from Sorbonne for curriculum and prospects excellence.

PSL Week - Audition: Du gène à la perception

11/2023 – 12/2023 Université PSL & Institut de l'Audition, Paris, FR
Interdisciplinary week on auditory sciences: cochlear biophysics, auditory neuroscience, experimental audiology...

Licence in Mechanical Engineering with Computer Science minor

09/2020 – 07/2023 Sorbonne Université Sciences (FSI), Paris, FR
1st year in Electronics, Computer Science, and Mechanics. 2nd/3rd year in Mechanics and Computing.

EXPERIENCE

Research Intern: Pupillometry and Microsaccades for Speech-in-Noise

03/2025 – 08/2025 Auditory Cognition Group, Newcastle & UCL, UK
Signal processing, statistical analysis, and developing new paradigms for microsaccades measures.
Recruited participants for experiments speech-in-noise comprehension while recording pupil dilation and microsaccades rate. Analyzed data.

Research Intern: Detection of Pure Tones in Noise

05/2024 – 08/2024 Laboratoire des Systèmes Perceptifs, ENS-PSL, Paris, FR
Signal processing, statistical analysis, and computational modeling related to auditory perception.
Replicated a 1975 study on pure tone detection using the Matlab fastACI toolbox (2021). Recruited participants for experiments on stimuli discrimination. Compared human results to computational auditory system models.

Voluntary Intern: Acoustic Source Directivity

05/2022 – 07/2022 Institut J d'Alembert, Sorbonne Université, Paris, FR
Physical acoustics, 3D modelling through beamforming, computational analysis. Conducted acoustic antenna experiments in various settings (anechoic chamber, 1000-microphone room) to study source directivity (speakers, voice).

ADDITIONAL SKILLS

Programming: Python3 (2k+ hours) / C (500+ hours) / Java (200+ hours) / Ocaml (100 hours) / SQL (100 hours).

Writing: Articles/videos analysis on auditory perception and music (English and French) at <https://www.facebook.com/melomanelibre> (inactive) and <https://azallb.github.io/blog-posts/>

Languages: French (native) / English: Bilingual, C1 certified by BSC London, 2019 / Italian: Upper Intermediate (B2) / Japanese: Intermediate (B1) / Learning LSF and Persian

Music: Singing for 18 years, self-taught musician for 8 years (bass and guitar). Bassist and singer in an amateur band (2018-2020) and singer in a group at the Conservatoire de Boulogne (CRR 92, 2020-21).