

Ali Vincent Al-Azem

Research Engineer

+1 (951) 972-6031
avalazem@gmail.com
avalazem.github.io
in avalazem

Research Interests Applied data analysis and modeling, machine learning, cognition, computational linguistics, dynamical systems

Education

2023–2024 M1 Mathématiques et Applications, Sorbonne Université, Paris

2019–2021 B.Sc. Mathematics, University of California, Los Angeles (UCLA), Los Angeles

Research

Jun 2025– **Co-Author**, École Normale Supérieure, Paris

Nov 2025 Co-authored a paper on the role of syllable structure in early language acquisition.

Designed and implemented a data pipeline using the IPA–CHILDES database to analyze syllable composition and frequency across 31 languages.

Nov 2024– **Research Intern**, Laboratoire de Sciences Cognitives et Psycholinguistique (LSCP), ENS, Paris

May 2025 Designed an fMRI paradigm to investigate neural mechanisms of word processing.

Conducted fMRI acquisition at NeuroSpin and developed preprocessing and analysis pipelines using Nilearn. Collaborated on training RNNs on phonetic data to simulate human word repetition.

Jul 2022– **Undergraduate Researcher**, University of California, Los Angeles, Los Angeles

Aug 2022 Studied the effects of generalized alcohol use on memory recollection as part of a large-scale meta-analysis. Analyzed mitochondrial DNA using PCR and BLAST to study haplogroup distributions and migration patterns.

Preprints

- [1] K. J. Tey, S. Peperkamp, M. Cychoz, **A. Al-Azem**, and A. Cristia. *Towards a Scalar Approach to Syllable Complexity Classification for Predicting Cross-linguistic Variation in Vocal Development*. 2025.

Poster Presentations

- [2] **A. Al-Azem**, E. Chemla, M. Zhan, C. Pallier, and Y. Lakretz. “Mapping Single Word Processing Onto Brain Dynamics”. In: *Proceedings of the International Conference on Child Language (ICCL)*. TBD.

Teaching

Feb 2017– **Supplemental Instructor**, Riverside City College, Riverside

Jun 2017 Tutored students and held supplemental group classroom sessions in statistics.

Skills & Interests

Programming Python, C/C++, Git, pandas, pytorch, scikit-learn, SQL

Languages English (native), French (C1), Spanish (beginner)

Interests Climate Change, Languages, Hiking, Cooking

References

Alejandrina Cristia (P.I., co-author)
Department of Cognitive Studies
École Normale Supérieure
Paris
✉ alejandrina.cristia@ens.fr
🌐 https://sites.google.com/site/acrsta

Christophe Pallier (Collaborator, co-author)
NeuroSpin
Gif-sur-Yvette
✉ christophe@pallier.org
🌐 https://pallier.org

Yair Lakretz (P.I., co-author)
Laboratoire de Sciences Cognitives et Psycholinguistique
Paris AI Research Institute
Paris
✉ yair.lakretz@gmail.com
🌐 https://yairlak.github.io