Ali Vincent Al-Azem
Research Engineer

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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–Nov 2025	**Co-Author**, *École Normale Supérieure*, Paris 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–May 2025	**Research Intern**, *Laboratoire de Sciences Cognitives et Psycholinguistique (LSCP), ENS*, Paris 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–Aug 2022	**Undergraduate Researcher**, *University of California, Los Angeles*, Los Angeles 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. Cychosz, **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: TBD.

Teaching

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