# ALI VINCENT AL-AZEM

## Mathematics Graduate | Research Engineer

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in avalazem

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## **EXPERIENCE**

#### Co-Author

#### École Normal Supérieure

Jun 2025 - Present

Paris

 Co-authoring 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, grounded in phonetic and typological principles.

#### Research Internship

# École Normal Supérieure

Laboratoire de Sciences Cognitives et Psycholinguistique (LSCP)

Nov 2024 - May 2025

Paris

- Designed and implemented an fMRI paradigm to investigate brain regions involved in word processing. Performed extensive cross-linguistic stimulus selection and categorization.
- Conducted fMRI data acquisition at NeuroSpin and developed a preprocessing and analysis pipeline using Nilearn.
- Partnered with a computational team to train deep neural models on phonetic data, simulating human word repetition and probing the cognitive and neural mechanisms behind language processing.

# Undergraduate Research Initiative UCLA

**J**ul 2022 - Aug 2022

Los Angeles

- Studied on the effect of generalized alcohol use on memory recollection as part of an ongoing meta-analysis on UCLA undergraduate students.
- Analyzed mitochondrial DNA using sequencing techniques (e.g., PCR, BLAST) to study the geographical spread of haplogroups and current migration patterns.

# **PUBLICATIONS**

#### **Conference Posters**

• Al-Azem, A., Chemla, E., Zhan, M., Pallier, C., and Lakretz, Y., "Mapping single word processing onto brain dynamics," in *ICCL*, Paris, 2025.

## **EDUCATION**

# M1 Mathématiques et Applications Sorbonne Université

**□** Sep 2023 - Jun 2024

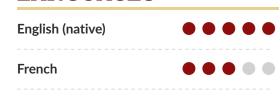
# B.Sc. Mathematics, Regents' Scholar **UCLA**

📋 Sep 2019 - Jun 2021

## **SKILLS**



## **LANGUAGES**



## REFEREES

#### Yair Lakretz

@ LSCP, Paris AI Research Institute

#### **Christophe Pallier**

@ NeuroSpin

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#### Alejandrina Cristia

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