# KINAN MARTIN

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## EDUCATION

**Massachusetts Institute of Technology**                                              **September 2019 – May 2024**
Master of Engineering in Computer Science and Cognition                                   GPA: 4.8 / 5.0
Bachelor of Science in Computer Science and Cognition                                    GPA: 4.9 / 5.0

## EXPERIENCE

**Reazon Holdings**                                                                   **June 2024 – present**
*Artificial Intelligence Researcher*                                                        *Tokyo, Japan*
  ▪ Leading team of four employees/interns to advance research and development of NLP solutions in products
  ▪ Coordinated release of ReazonSpeech-k2-v2, leading open-source Japanese automatic speech recognition model
  ▪ Implemented OpenVLA (vision-language-action) model using ROS 2.0 and Crane X7 robotic arm
  ▪ Heading development of LangFit, a React app providing real-time translation/annotation of EN and JP speech

**Foxconn**                                                                         **June 2023 – August 2023**
*Artificial Intelligence Researcher*                                                        *Taipei, Taiwan*
  ▪ Spearheaded project on AI driving assistant with multimodal vision-language models and LLMs
  ▪ Designed and implemented novel model architecture and dataset generation pipeline
  ▪ Jointly devised and submitted US and Taiwanese patents for the above

**MIT Computational Psycholinguistics Lab**                                          **September 2022 – May 2024**
*Student Researcher*                                                                     *Cambridge, MA*
  ▪ Completed master's thesis on the relationship between contextual predictability and phonetic reduction
  ▪ Designed and implemented novel probing paradigm for self-supervised spoken language models
  ▪ Used Facebook AI's *fairseq* to quantify how models incl. HuBERT exhibit human-like processing behavior
  ▪ Wrote first-author paper accepted to int'l spoken language processing conference INTERSPEECH 2023

**MIT**                                                                             **September 2022 – May 2024**
*Teaching Assistant (6.101 Fundamentals of Programming)*                                      *Cambridge, MA*
  ▪ Taught 600+ students by helping solve/debug assignments and fostered good coding practices in weekly labs
  ▪ Led weekly staff meetings and taught 30+ fellow lab assistant staff best practices for helping students

**University of Chile**                                                              **June 2022 – August 2022**
*Student Researcher*                                                                      *Santiago, Chile*
  ▪ Co-authored paper on training word embeddings for Spanish clinical use published in int'l journal *Frontiers.*
  ▪ Implemented NLP models for int'l computational linguistics competition (SMM4H 2022: SocialDISNER):
    scored 2nd place on eval metric. Co-authored corresponding paper published by *ACL*.

## SELECTED PROJECTS

**Arabic part of speech marking browser extension (na7w)**                                      **January 2024**
Created Chrome extension to mark parts of speech of Arabic text on webpages, deployed on GCP
**Problem solving with Large Language Models via context augmentation**                          **April 2023**
Devised and implemented a set of LLM context augmentation methods to improve performance at problem solving
**Speech to speech translation model**                                                          **May 2022**
Built novel speech to speech translation pipeline, wrote corresponding paper describing methodology
**Grapheme to phoneme RNN model**                                                               **May 2021**
Built Pytorch LSTM models to predict the pronunciation of novel words given their spellings for arbitrary languages

## SKILLS AND ACHIEVEMENTS

**Foreign Languages**   Japanese, French, Russian, Chinese, Arabic, Spanish; learning Korean, Vietnamese, Polish, and more
**Coding Languages**    Python, *nix/Bash, MATLAB, R, React, HTML/CSS, JS, TypeScript, LaTeX
**Software & Tools**    git, pytorch, numpy, pandas, SQL, sklearn, slurm, NLTK, Stanza, GCP, Praat, ROS

  ▪ Passed the highest level of the international Japanese Language Proficiency Test (JLPT N1) in the 96th percentile (2017).
  ▪ Ron Brown Scholarship Scholar (2019-2023)
  ▪ First Place in Russian Poetry Recitation, Second Place in Speech Contest at New England Olympiada of Spoken Russian at Harvard University (2020).