# Alison Y. Kim, M.A.

**Date of Birth:** 26.06.1994

Place of Birth: Los Angeles, CA, USA

Citizenship: USA

**Residence Permit:** L (Swiss university graduate/job seeker) Languages: English (L1), Korean (L1), German (C1),

Swiss German (C1), French (B1), Dutch (A1)

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> Winterthurerstrasse 26 8610 Uster Switzerland



## Summary

Computational linguistics is a beautiful intersection of informatics and the most extraordinary human phenomenon: language. With both skills and enthusiasm for NLP — particularly language modeling, text generation, and sentiment analysis — I have honed my expertise in developing high-performing NLP models and solutions. As a recent Master's graduate, I am excited to apply my NLP and ML skills to large-scale challenges in highly relevant industries.

### Experience

References and more comprehensive list of professional experiences provided upon request.

09/2022-07/2023 University of Zurich, Institute for Computational Linguistics, Zurich, Switzerland Master's Thesis: Learning a decoding objective from human-generated text

- O Implemented a regression framework using Python ML and NLP libraries (PyTorch, transformers) to learn a decoding strategy for language modeling tasks (text generation, large language models)
- O Demonstrated text quality using the learned strategy that is competitive with that of existing decoding strategies, based on standard text generation metrics (e.g. MAUVE, text perplexity)

#### Research Assistant

- O Built a binary classifier for a German sentiment analysis task using Python ML tools (sklearn, PyTorch)
- Conducted data collection, pre-/postprocessing, and feature engineering to optimize classifier performance
- Improved performance of computational linguistics department's in-house German stance detection platform

#### **Teaching Assistant**

- Designed curriculum and led weekly tutorials for 60+ students in 2 introductory Python NLP courses
- Provided quantitative and qualitative feedback on 100+ assignments and final exams/projects

08/2018-08/2019

Gap Year, San Francisco, CA, USA

Self-learning German, part-time tutoring, traveling

01/2017-07/2018 University of California, San Francisco, San Francisco, CA, USA Lab Technician

- Built soft- and hardware for the lab's first iteration of a behavioral task for mice
- Utilized data science and ML methodologies (e.g. preprocessing, dimensionality reduction) to analyze complex neurophysiological datasets
- Developed pipelines for efficient collection and storage of behavioral and physiological data with MATLAB
- Mentored undergraduate assistants and assumed lab manager responsibilities

03/2016-01/2017 Abaxis Global Diagnostics, Union City, CA, USA

#### Intern, Process Engineering

- Conducted biochemical experiments and applied regression analysis with MATLAB to identify key sources of contamination in blood analysis devices
- Applied statistical analysis to quantify cost savings and structural improvements achieved by adopting laser welding in device production
- Used Python data visualization tools (matplotlib, pandas) to effectively present results

#### Education

09/2021–07/2023 University of Zurich, Zurich, Switzerland Master of Arts, Digital Linguistics

09/2019-06/2021

The Wright Institute, Berkeley, CA, USA

Master of Arts, Psychology

08/2012-05/2016

University of California, Berkeley, Berkeley, CA, USA

Bachelor of Arts, Physics

## **Publications and Presentations**

06/2023 Keyword Consolidation

P. Ghoshal, **A. Kim**, N. Bleiker 8th Swiss Text Analytics Conference

04/2023 Gender-tailored Semantic Role Profiling for German

M. Klenner, A. Göhring, A. Kim, D. Massey

15. International Conference on Computational Semantics (IWCS)

#### Skills

Programming Python (advanced), SQL (intermediate), BASH (basic), MATLAB (basic), R (basic)

Machine Learning Supervised learning (regression, classification), deep learning (RNN, Transformer);

PyTorch, TensorFlow, sklearn, NumPy, scipy, pandas, matplotlib, seaborn

NLP/NLU Text generation, large language models (LLMs), sentiment analysis, keyword consolidation, multilingual NLP;

Hugging Face (transformers, datasets, evaluate), spaCy, NLTK, gensim, regular expressions

Databases MySQL, Excel

Other Version control (Git), containerization (Docker), job scheduling (Slurm)

Markup Languages LATEX, Markdown, XML