JOHANNES MARIO MEISSNER

(+81)80-7241-8926 ⋄ jmariomeissner@gmail.com ⋄ mmblanco@.indeed.com
mariomeissner.github.io ⋄ linkedin.com/in/jmariomeissner

I'm a **full-stack machine learning engineer**. My academic background involved the publication of several **NLP papers in high-rank conferences**. I have extensive experience with **Python development**, especially in machine learning. At Indeed, I work on building the **internal machine learning platform and infrastructure**, to support model training, experimentation, and large-scale deployment to millions of users.

EDUCATION

The University of Tokyo, Japan *2020 - 2022*
English Masters Program on Intelligent Information Processing (Computer Science).
Natural Language Processing research at the Aizawa Laboratory, National Institute of Informatics.

University of Cantabria, Spain *2015 - 2019*
Bachelor of Computer Science and Engineering. 2nd best in class.
Specialization in Machine Learning and Computational Theory.
Exchange program at Munich University of Applied Sciences, Germany, 2017/2018.

SELECTED PUBLICATIONS

Debiasing Masks: A New Framework for Shortcut Mitigation in NLU EMNLP 2022
Johannes M. Meissner, Saku Sugawara, Akiko Aizawa
A new approach to language model debiasing by leveraging pruning techniques to remove biased weights. We introduce the concept of "debiasing masks" to pinpoint and quantify debiasing behaviors.

Embracing Ambiguity: Shifting the Training Target of NLI Models ACL 2021
Johannes M. Meissner, Napat Thumwanit, Saku Sugawara, Akiko Aizawa
We re-target NLI language models to predict the human ambiguity distribution of samples rather than gold-labels, improving their ability to predict ambiguity, while also generalizing better.

Automatic Detection of Handwritten Turing Machines for Assisted Evaluation 2019
Johannes M. Meissner. Bachelor's Thesis. Defended at the University of Cantabria.
A thorough review of Machine Learning and Deep Learning concepts, followed by the application of a convolutional recurrent neural network model to transcribe handwritten Turing machine models.

WORK / RESEARCH EXPERIENCE

Indeed October 2023 - Present
Machine Learning Engineer *Tokyo, Japan*

- Maintaining and improving Indeed's internal machine learning platform
- Supporting the research and development of ML models that train and ship at scale

Indeed October 2022 - September 2023
Full-stack Software Engineer *Tokyo, Japan*

- Delivered features reaching millions of users for the Indeed apply user flows
- Full-stack engineering spanning front-end, back-end, logging and A/B testing

LeapMind August 2021 - September 2021
Summer Internship, Deep Learning Development Team *Tokyo, Japan*

- Applied advanced pruning methods on binarized networks to improve robustness and performance.
- Achieved a performance increase while reducing model size by 50% and keeping compatibility with the company's internal binarization hardware.

NTT Media Intelligence Laboratories January 2020 - August 2020
Research Internship (Vulcanus), Speech Recognition Team *Kanagawa, Japan*

- Lead the group's efforts on ASR output text postprocessing. Applied RNN and Transformer architectures to tasks such as punctuation insertion and error correction.
- Simplified the training pipeline of NTT's English Voice Recognition systems based on Gaussian Mixture Models. Obtained experience with ML for speech recognition.

ACADEMIC ACHIEVEMENTS

- Received the prestigious **La Caixa Fellowship**, which covers full tuition fees and a monthly stipend for my postgraduate studies at the University of Tokyo. *2020-2022*
- Admitted into the **Vulcanus in Japan** program, covering a 4-month intensive language course and 8-month research internship in Japan. *2019-2020*
- Obtained the **second highest GPA** in class at graduation, University of Cantabria. *July 2019*
- Received **Funcación Botín Scholarship** for undergraduate studies 3 years in a row. *2016-2019*
- Won the **first prize at the Hack2Progress Santander** Hackathon with a cloud-based public lighting management project to reduce urban power consumption. We used computer vision techniques to detect cars and pedestrians and turn streetlights on and off. *November 2018*

PROJECTS

PaperStudio: A modern research paper management tool *2020*
Built a web application (`https://paperstudio.app`) for researchers to search for research papers and keep track of them in a library system. It integrates an ElasticSearch instance for search and recommendations, and LLM APIs for information retrieval and ideation. Built with NextJS and PlanetScale.

Dissected Attention Network *2020*
Dove into the code that builds an attention recurrent neural network to understand the underlying concepts and learn how to build one myself, explaining what each part does along the way.
More information: `https://mariomeissner.github.io/dissected-attention/`

Biomedical Image Segmentation with KAF Kernels *2019*
Participated in a university project which involved using U-Net architectures with Kernel Adaptive Filtering methods to segment the vocal chords and glottis of laryngeal imagery. Learned to apply computer vision techniques to biomedical data.

SKILLS

Programming
Python (ML / Data Science Stack), Javascript (Full-stack Applications), Java, C, R, Linux, Docker

Languages
Spanish (Native), German (Fluent), English (Fluent, TOEFL 113), Japanese (Advanced, N2)