JOHANNES MARIO MEISSNER

(+81)80-7241-8926 ⋄ jmariomeissner@gmail.com ⋄ meissner@g.ecc.u-tokyo.ac.jp

mariomeissner.github.io ⋄ linkedin.com/in/jmariomeissner

I'm a **machine learning researcher** and **full stack engineer**. My academic background involved the publication of several **NLP papers in high-rank conferences**. In industry, I have extensive experience with **Python development**, especially in machine learning. Further, I can work with **full stack projects** building both backends and frontends using Django or **modern web frameworks** such as Next and Tailwind.

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. **GPA: 9.22 / 10**
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
Leveraging the pruning technique coupled with a debiasing loss to identify which weights to remove such that a debiasing behavior is simulatenously achieved. The resulting 'debiasing mask' is more flexible than standard debiasing approaches and open the doors to interesting future research directions.

Embracing Ambiguity: Shifting the Training Target of NLI Models ACL-IJCNLP 2021
Johannes M. Meissner, Napat Thumwanit, Saku Sugawara, Akiko Aizawa
Changing the loss target of Transformer NLI models to be the label distribution generated from several human annotations improves their ability to predict ambiguity, while also generalizing better and acquiring more powerful representations for downstream tasks.

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 2022 - Present
Software Development *Tokyo, Japan*

· Working on the backend and frontend of the Indeed platform's various services
· Experience building applications for large-scale deployment
· Extensive A/B testing and data analysis

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.

Research Scholarship at University of Cantabria   November 2018 - June 2019

Research Assistant, Educational Data Mining   *Santander, Spain*

· Analyzed data from educational platforms to predict student performance and dropout rate.

· Published an Educational Data Mining survey paper.

· Built **a research tool** for working with tabular data extracted from Moodle using `pandas`

· Obtained a Spanish educational scholarship for top students to carry out undergraduate research.

Siemens   November 2017 - June 2018

Security Monitoring, Python Development   *Munich, Germany*

· Assisted with security and product vulnerability monitoring, e.g. vulnerability advisories tracking.

· Developed python-based in-house monitoring tools to automatically detect and filter important news and security alerts. Involved data pipeline management, web-scraping...

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

Dissected Attention Network   *2020*

Dived 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), Java, Javascript, C, R, Linux, Docker

Languages

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