JOHANNES MARIO MEISSNER

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

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

EDUCATION

The University of Tokyo, Japan   *2020 - 2022*
Master's Degree in Computer Science. English Program on Intelligent Information Processing.
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.

PUBLICATIONS

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.

Present and Future of Educational Data Mining: A Review   INCETID 2019
Johannes M. Meissner, Diego García, Alfonso de la Vega, Ruth Villalón
Summary of the techniques used in Educational Data Mining with examples of the problems it solves and
discussion on the future of the discipline. Work supported by an undergraduate research scholarship.

WORK / RESEARCH EXPERIENCE

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`:
  `https://github.com/mariomeissner/moodle-log-parser`.

· 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...

Summer of Code at BRL-CAD   June 2017 - September 2017
Open Source Development in C++   *Remote*

· Implemented heterogeneous density support the BRL-CAD 3D modeling software.
· European Space Agency Summer of Code Scholarship (SOCIS).

ACADEMIC ACHIEVEMENTS

· Received the prestigious **La Caixa Fellowship** (Spanish bank), 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.

Encoder-Decoder Model for Conversation Simulation   *2018*
Used novel encoder-decoder recurrent neural network architectures to produce replies to text messages, using my own message history as a dataset.
More information: `https://mariomeissner.github.io/chatbot/`

EXTRACURRICULAR / VOLUNTEERING

Mentor for Incoming International Students, U. Cantabria   *Summer 2017*
Helped organize events and offered assistance and orientation for students moving in.

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)