JOHANNES MARIO MEISSNER

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EDUCATION

University of Cantabria, Santander   *2015 - 2019*
Bachelor of Computer Science and Engineering.   **GPA: 9.22 / 10**
Specialization in Computation and Machine Learning.
One year exchange program at Munich University of Applied Sciences, Germany.
Graduated second in promotion.

PUBLICATIONS

Computer-based Assessment of Traditional Paper-based Exams   [ongoing]
Target journal: *Elsevier Computers & Education*
Based on my Bachelor's Thesis. Using CRNN models to perform Optical Character Recognition of
hand-written content in student's exams to obtain a textual representation for evaluation.

Automatic Detection of Handwritten Turing Machines for Assisted Evaluation   [thesis]
Bachelor's Thesis. Defended at Universidad de Cantabria in July 2019.
A thorough review of Machine Learning and Deep Learning concepts, followed by the application of a
convolutional and recurrent neural network model to transcribe handwritten Turing machine models.

Present and Future of Educational Data Mining: A Review   [published]
Meissner, Johannes; García, Diego; de la Vega, Alfonso; Villalón, Ruth   *2019*
International Conference on Education, Technology, Innovation and Development
Summary of the techniques and algorithms used in Educational Data Mining with examples of the
problems that they can solve and discussion on the expected future of the discipline. Work supported
by a Research Scholarship at University of Cantabria.

WORK / RESEARCH EXPERIENCE

NTT Media Intelligence Laboratories   January 2020 - August 2020
Research Internship   *Kanagawa, Japan*

· Vulcanus in Japan Scholarship by the EU-Japan Centre for Industrial Cooperation.
· 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.

Research Scholarship at University of Cantabria   November 2018 - June 2019
Research Assistant   *Santander, Spain*

· Spanish Ministry of Education Scholarship for top students to carry out research
  in collaboration with university departments.
· Worked on clustering, dropout prediction, grade estimation from student's usage data
  of educational platforms.
· Published a Text Mining Review paper.
· Built a research tool for working with tabular data extracted from Moodle, using `pandas`:
  `https://github.com/mariomeissner/moodle-log-parser`.

Siemens   November 2017 - June 2018
Working Student   *Munich, Germany*
- · Assisted with security and product vulnerability monitoring.
- · Developed python-based in-house monitoring tools.
  Involved data pipeline management, webscraping...

BRL-CAD   June 2017 - September 2017
Open Source Contribution   *Remote*
- · European Space Agency Summer of Code Scholarship (SOCIS) for 3 months.
- · Implementing heterogeneous density support to their 3D modelling software.

ACADEMIC ACHIEVEMENTS

- Received the prestigious **La Caixa Fellowship for Postgraduate Studies,**
  offers full funding for postgraduate education.   *2020-2021*

- Admitted into the **Vulcanus in Japan** programme, covering a 4-month intensive
  language course and 10-month research internship in Japan.   *2019-2020*

- Ranked **second** in my promotion at Universidad de Cantabria, 2019.   *July 2019*

- Received **Funcación Botín Scholarship** for undergraduate studies 3 years in a row. *2016-2019*

- Won **First Prize at Hack2Progress Santander** Hackathon, with a
  cloud-based public lighting management project to reduce power consumption.   *November 2018*

PROJECTS

Encoder-Decoder Model for conversation simulation   *2018*
Utilizing novel encoder-decoder deep learning models to produce replies to text messages,
using my own message history as dataset.
More information: `https://mariomeissner.github.io/chatbot/`

Dissected Attention Network   *2020*
Breaking down the code that builds a neural network with attention to understand
the underlying concepts and learn how to build one myself.
More information: `https://mariomeissner.github.io/dissected-attention/`

EXTRACURRICULAR / VOLUNTEERING

Mentor for Incoming International Students   *Summer 2017*
Offered assistance to incoming international students, both individually and in group events.

SKILLS

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

Programming
Linux, Git, Python (Numpy, Pandas, Tensorflow, Keras, PyTorch, ...), Java, Javascript, C, R, ...