

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.
- Application of RNN and Transformer architectures to ASR output post-processing tasks such as punctuation insertion and error correction.
- Simplifying 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

- Scholarship by the Ministry of Education for top students to carry out research in collaboration with university departments.
- 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
Working Student

November 2017 - June 2018
Munich, Germany

- Security and product vulnerability monitoring assistance.
- Improving of in-house monitoring tools. Development of a Python-based . Webscraping.

BRL-CAD
Open Source Contribution

June 2017 - September 2017
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, ...