Zürich, Switzerland
Portuguese (EU)
English (fluent),
Portuguese (native),
French (work proficiency)

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BEATRIZ **BORGES**

What does building the future look like to me? Working with awesome teams to ambitiously bring positive, innovative, and impactful visions to life, through Machine Learning and AI!

SUMMARY

Enthusiastic, driven and ambitious data scientist, with experience in research, both collaborating in and leading a team, entrepreneurship, and teaching. With a particular eye for details due to an inquisitive nature and an analytic mindset, a curious and motivated multidisciplinary learner.

Experience building, training and evaluating Machine Learning models – both for future prediction purposes and analysis of past events. Though with more thorough education in the language applications, skilled also in vision domain, as well as in conducting research projects and reports. Also familiar with software development, both with low and high level programming languages, including testing, and full-stack web development.

I could see myself thriving and having a big impact in a dynamic, open-minded team tackling challenging yet important problems. Although I have specialized more in language applications, I am always eager to learn and adapt to new situations and scenarios, and leverage Machine Learning to build fantastic end-products.

KEY ACHIEVEMENTS

- Recipient of a full-ride academic scholarship for the duration of the Bachelor's degree, awarded for exceptional academic performance over the previous two semesters of each academic year.
- Awarded a New Talents in Artificial Intelligence grant as an undergraduate student, out a total of 10 to 15 grants for hundreds of both undergraduate and graduate students at the national level.
- Second place winner in LauzHack 2019, for a personality-assuming conversational AI based on Open AI's GPT-2 and ConvAI's NeurIPS 2018 paper.
- Workshop winner in HackZurich2021, out of a total of more than 150 total projects, for "reverse engineering a model" to create a digital health twin - using a wide range of findings from medical papers and open data to build a realistic synthetic dataset, then used to train a predictive model.

WORK EXPERIENCE

2021–2022 | **Algorithm & Machine Learning Intern**
LogicFlow AG · Zürich, Switzerland

- → Revised the current ML pipeline, proposing and later implementing several architectural changes improving the algorithm, evaluation process and metrics.
- → Designed model to act as new backbone of the Machine Learning classification, leveraging strategies from facial recognition networks, text embeddings and auto-encoders. Also developed and deployed micro-services using Azure.
- → Responsible for shifting the dataset to the cloud, integrating it with Azure and automating the preprocessing, guaranteeing whole team had an equal updated dataset at all times.
- → Implemented and tested multiple architectures and learning strategies (e.g. out-of-core learning) to obtain the solution that best fit the company's clients.

2018–2019 | **Gulbenkian Research Fellow**
Calouste Gulbenkian Foundation · Lisbon, Portugal

- → Researched several autonomous navigation and route planning algorithms, evaluating their applicability to underwater conditions and limitations.
- → Integrated a real-time image detection algorithm with a Remotely Operated Vehicle, designed for detection and control of fish and other underwater elements found in tanks.

EDUCATION

2022 **MSc. in Data Science**
EPFL · Lausanne, Switzerland
Current GPA of 5.7 (higher than the de-facto threshold of excellence of 5.2 out of 6).
Relevant coursework includes machine learning, data analysis, natural language processing, computer vision, behavioral and learning data, information security and privacy, large scale data science with real-world data, distributed systems, and digital humanities.

2019 **BSc. in Computer and Telematics Engineering**
Universidade de Aveiro · Aveiro, Portugal
Best student of the class of 2019, with a final grade average of 19 out of 20.
Relevant coursework includes algorithms and complexity, programming, automata, introduction to AI, databases, computer architecture, and digital systems.

PUBLICATIONS

2021 **Laughing Heads: Can Transformers Detect What Makes a Sentence Funny?**
Maxime Peyrard, **Beatriz Borges**, Kristina Gligorić, and Robert West.
In Proceedings of the Thirtieth International Joint Conference on Artificial Intelligence, IJCAI-21 (pp. 3899–3905). International Joint Conferences on Artificial Intelligence Organization, 2021.

VOLUNTEERING

Though it is getting better decade by decade, the world isn't perfect. I have always enjoyed lending a hand whenever I could, and help inspire others as well.

2021 **EmpowermentLab Role Model** (Geneva, Switzerland)
Selected as noteworthy woman in technology by the EmpowermentLab team, I present my path to girls between 12 and 18 years old, demystifying Computer and Data Science, discussing careers in the current technological landscape, and helping them discover new future possibilities.

2016–2017 **Review Sessions Lecturer** (Aveiro, Portugal)
As the top student in several classes, due to the difficulty some colleagues had in solving exercises and understanding some subjects and the lack of TAs in Portugal, I organized, prepared and lectured review sessions covering the main topics of the classes, presenting key ideas, answering questions and solving exercises.

2017 **ENE3 Staff** (Coimbra, Portugal)
Integrated the staff of an annual event for students by students, co-teaching a class on the Internet Of Things, including creating a presentation, designing of a small breadboard exercise for attendees to solve, to helping them debug and understand the underlying principles at play.

OTHER EDUCATION

I love learning, I think that click of understanding when something suddenly makes sense and fits together is one of the great pleasures of life. As such, I'm always eager to take part in workshops and trainings, from entrepreneurship to music, neuroscience and everything in between.

2021 **Business Concept**
Innosuisse · Lausanne, Switzerland
A 14-week training program in developing a business project (positively evaluated by the jury), including topics like entrepreneurial thinking, market analysis and value proposition, protection of IP and technology transfer, introduction to financial statements, the start-up ecosystem, financing, product market fit, financial planning and presentation and interview skills.

2021 **Business Creation**
VentureLab · Zürich, Switzerland
A 5-day intensive course from a minimum viable product to industrialization. Topics covered include delivering unique customer value, convincing customers and investors, defining the business development plan, putting a winning team at work, and securing funding.

Ongoing **MOOCs in diverse topics**
Coursera & edX · Online
The most relevant MOOCs completed (all with 100% final grade) include Stanford's Machine Learning, DeepLearning's Deep Learning Specialization (5 courses), U. Washington's Computational Neuroscience, and U. Toronto's Introduction to Psychology. Other coursework relates to human physiology, electronics, photography, probabilities, and computer science.

INTERESTS

A bit of a polymath, I indulge in a myriad of hobbies, such as playing the piano (recently started learning to play the ukelele as well), practicing martial arts (shu-do/self-defense MMA), dancing, hiking, watercolor and calligraphy, as well as reading and tinkering with gadgets and systems. I also love to sing!

REFERENCES

Below you can find excerpts of some references. Full versions available upon request.

"As a young student, Beatriz revealed remarkable organizational and technical skills, which enabled her to complete the course with distinction. Brilliance is something that reveals itself in young ages, in my personal belief, Beatriz Borges is and will remain a brilliant student."

Prof. Luís Nero Alves, University of Aveiro

"Beatriz always shown interest and critical thinking about the subjects taught and presented high quality solutions to the proposed problems. She received the Best Student Award due to her outstanding academic performance, where she demonstrated the ability to learn and work hard, both autonomously and as part of a two-person team. ... Apart from her intellectual ability and ability to work in a group, Beatriz also revealed herself to be determined to succeed."

Prof. Arnaldo Oliveira, University of Aveiro

"Mrs. BORGES showed exceptional intellectual abilities and demonstrated a very high standard of academic education. ... Beatriz ... happened to be one of the best students for that course, not only at the exams but also through her involvement and questions in both the lectures and the practical sessions over the whole semester. I would say she is the kind of students in the top 2% over the last 5 years."

Dr. Jean-Cédric Chappelier, EPFL

"Beatriz revealed great work ethic and dedication, competently resolving all the proposed work. ... She showed no difficulty in working as part of a team, exhibiting commendable organizational and technical skills during group activities. ... This outstanding performance was also present in other classes, where Beatriz achieved equally remarkable grades. She has proven to have both high intellectual ability and the motivation to succeed."

Prof. João Estima, University of Aveiro