Catarina **Belém**

UserID: catarina.belem@tecnico.ulisboa.pt

http://web.ist.utl.pt/catarina.belem

WORK EXPERIENCE

FEEDZAI | Research Data Scientist in Ethical AI group
Jul 2019 – current | Feedzai, Lisbon, Portugal

- Co-authored of NeurIPS 2020 HAMLETS Workshop paper on self-explainable Neural Networks;
- Development of fairness-aware hyperparameter optimization framework (led to publication)
- Development of A/B testing framework for robust evaluation of explainability methods (led to publication)
- Large dataset handling (approximately 700 GB)

INESC-ID | Junior Researcher
Oct 2017 – Jul 2019 | Lisbon, Portugal

Research on efficient ways of optimizing architectural design problems, typically characterized by time-consuming evaluation functions. Investigative work on derivative-free and multi-objective optimization within architectural designs.

- Research Grant | Feb 2019 - Jul 2019
- Research Grant | Jul 2018 - Dec 2018
- Junior Intern | Oct 2017 - Jul 2018

INSTITUTO SUPERIOR TÉCNICO | Teaching Assistant
Feb 2018 - Jul 2019 | Lisbon, Portugal

Teaching the practical classes of the Advanced Programming Course of the Information Systems and Computer Engineering MSc

- Helped creating and evaluating project assignments in Java, Julia, and LISP;
- Helped creating and evaluating exams.

LINK CONSULTING | Junior Analyst & Programmer
Jul 2016 – Jul 2017 | Lisbon, Portugal

- Worked for the *Fidelidade* Insurance Company
- Developed C++ applications and developed the supporting backend in MS SQL Server.

EDUCATION

INSTITUTO SUPERIOR TÉCNICO | Master of Science in Information Systems and Computer Engineering
Instituto Superior Técnico, Universidade de Lisboa | Lisbon, Portugal | Sep. 2016 -- Jun. 2019

- **GPA:** 19 / 20,
- **Major:** Intelligent Systems,
- **Thesis:** Optimization of Time-Consuming Objective Functions | **Grade:** 20 / 20
- **Publications:** 7 conference publications (1x rank A; 6x rank B)
- **Extra curricular**: Student at a French Course (2018/2019), Summer Monitor teaching students (between 11- and 17 years old) to program in Python, Active member of NEIIST; Member of a Philharmonic band.

INSTITUTO SUPERIOR TÉCNICO | Bachelor Information Systems and Computer Engineering
Instituto Superior Técnico, Universidade de Lisboa | Lisbon, Portugal | Sep. 2013 -- Jul. 2016

- **GPA**: 18 / 20
- **Extra curricular**: Student's Mentor (2014/2015, 2015/2016); Active member of NEIIST and SET student's association; Member of two Philharmonic bands.

AWARDS

MLP 2019 | Young Alumni - Maria de Lourdes Pintasilgo 2019 Award
Instituto Superior Técnico, Lisbon, Portugal

TEACHING EXCELLENCY AWARDS (2nd semester 2018/19)
Instituto Superior Técnico, Lisbon, Portugal

ACADEMIC MERIT 2016/17
Instituto Superior Técnico, Lisbon, Portugal

ACADEMIC EXCELLENCE (2013/14, 2014/15, 2015/16)
Instituto Superior Técnico, Lisbon, Portugal

VOLUNTEER

TREETREE2 | Student Supervisor
September 2019 | Lisbon, Portugal

- Prepare and guide a 15 year old student through the accomplish of a project in Computer Science
- Attend training sessions regarding communication skills, task and time management prioritization

SELECTED PUBLICATIONS

HOW CAN I CHOOSE AN EXPLAINER? AN APPLICATION-GROUNDED EVALUATION OF POST-HOC EXPLANATIONS
ACM FAccT 2021 (accepted)
Jesus, S., **Belém, C.**, Balayan, V., Saleiro, P., Bizarro, P. & Gama, J. (March 2021).

TEACHING THE MACHINE TO EXPLAIN ITSELF USING DOMAIN KNOWLEDGE
NeurIPS 2020 HAMLETS workshop, December 2020
Balayan, V., Saleiro, P., **Belém, C.**, Bizarro, P. & Krippahl, L. (December 2020)

A BANDIT-BASED ALGORITHM FOR FAIRNESS-AWARE HYPERPARAMETER OPTIMIZATION
September 2020
Cruz, A. F., Saleiro, P., **Belém, C.**, Soares, C. & Bizarro, P. (September 2020).

ON THE IMPACT OF MACHINE LEARNING: ARCHITECTURE WITHOUT ARCHITECTS?
18th CAAD Futures, South Korea, June 2019
Belém, C., Santos, L. S., & Leitão, A. (June 2019).

OTHER ACTIVITIES

CMMRS 2019
| Participant at Cornell, Maryland, Max Planck Pre-doctoral Research School 2019
Max Planck Institute for Software Systems in Saarbrücken, Germany | Aug. 2019
Attended to several talks in a variety of cutting-edge topics in computing, including secure and dependable systems, machine learning, data visualization, and programming language design.

SPOKEN & WRITTEN
Native fluency:
Portuguese
Reading, Writing fluency:
English
Reading, Writing Elementar:
French

HOBBIES
Running | Cooking | Arduino Electronics