MARGARIDA FERREIRA

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US: (+1) 412 636-8249
PT: (+351) 966 650 596
margarida@cmu.edu
https://marghrid.github.io

Education

PhD. Computer Science — 2021 – present

Carnegie Mellon University and Instituto Superior Técnico, University of Lisbon

Advised by Professor Inês Lynce and Professor Ruben Martins. Dual Degree PhD fellowship by CMU Portugal. Currently working on using program synthesis to reverse engineer congestion control algorithms.

MSc. Computer Science and Engineering — 2018 – 2020

Instituto Superior Técnico, University of Lisbon

GPA: 17.3/20 (87%). **Specializations**: Artificial Intelligence, Algorithms and Programming. Maximum grade (20/20) on Algorithms for Computational Logic. **Master Thesis**: FOREST*: An Interactive Multi-tree Synthesizer for Regular Expressions*, advised by Professor Inês Lynce and Dr. Miguel Neves.

MSc. Informatics, Erasmus+ Exchange Year — 2018 – 2019

Technical University of Munich

GPA: 2.29 (79%). Coursework in Artificial Intelligence, Natural Language Processing, Algorithms, Game Theory, Robotics, and Parallel Programming.

BSc. Computer Science and Engineering — 2015 – 2018

Instituto Superior Técnico, University of Lisbon

GPA: 18.2/20.0 (91%). Maximum grade (20/20) on Discrete Mathematics, Object-oriented Programming and Artificial Intelligence.

Publications

Counterfeiting Congestion Control Algorithms. **M. Ferreira**, A. Narayan, I. Lynce, R. Martins, J. Sherry. HotNets 2021.

FOREST: An Interactive Multi-tree Synthesizer for Regular Expressions. **M. Ferreira**, M. Terra-Neves, M. Ventura, I. Lynce, and R. Martins. TACAS 2021.

Experience

Teaching Assistant — 2020 – 2021

Instituto Superior Técnico, University of Lisbon

- Fall 20/21: Artificial Intelligence, BSc. Computer Science and Engineering.
- Spring 20/21: Introduction to Algorithms and Data Structures, BSc. Computer Science and Engineering.

Early Stage Researcher
2020 – present

INESC-ID

Research Group: Automated Reasoning and Software Reliability (ARSR). Project: Automated Programming to Revolutionize App Development (GOLEM). Working on synthesis of regular expressions from examples, and later on using program synthesis to reverse engineer congestion control algorithms.

Research Internship
2019 – 2020

OutSystems

Department of Engineering, division of Artificial Intelligence. Working on synthesis of regular expressions from examples, under the supervision of Dr. Miguel Neves and Miguel Ventura.

Research Scholarship
2017 – 2018

Calouste Gulbenkian Foundation, New Talents in Artificial Intelligence Grant

Project: *Satisfying Cooperative Path-finding*, developed under the guidance of Professor Inês Lynce. I studied and evaluated SAT-based methods to find an optimal solution for Cooperative Path-Finding.

Scholarships

Dual Degree PhD Fellowship
2021 – 2026

CMU Portugal Program

GOLEM Research Scholarship
2020 – 2021

INESC-ID, CMU Portugal Program

Visiting Students Scholarship (suspended due to COVID-19)
2020

CMU Portugal Program

Erasmus+ Scholarship at Technical University of Munich
2018 – 2019

Erasmus Program

New Talents in Artificial Intelligence Scholarship
2017 – 2018

Calouste Gulbenkian Foundation

Honors

Academic Excellence Certificates in all 3 years of BSc. and last year of MSc. Degree.
2016–2018, 2020

Instituto Superior Técnico, University of Lisbon

Languages

Portuguese: ●●●●●●
English: ●●●●●◐
German: ●●○○○○
French: ●●○○○○
Spanish: ●●○○○○
Japanese: ◐○○○○○

Exams: *TOEFL iBT*: 118/120, Oct. 2020. *IELTS*: 8.5/9.0, Feb. 2018.