Afonso Manuel Barral Caniço

Software Engineer, Teaching Assistant

afonso.manuel.canico@gmail.com linkedin.com/in/afonso-canico
github.com/ambco-iscte 0009-0009-9334-717X

Education

Doctoral Programme (PhD) in Information Science and Technology, 09/2024 – present
Iscte - University Institute of Lisbon Lisbon, Portugal

Master's of Science (MSc) in Computer Science and Engineering, 09/2022 – 07/2024
Iscte - University Institute of Lisbon Lisbon, Portugal
- Grade: 18 / 20
- Awards: ISTA Top Talent - Academic Merit and Excellence Award (2022)

Bachelor's of Science (BSc) in Computer Science and Engineering, 09/2019 – 06/2022
Iscte - University Institute of Lisbon Lisbon, Portugal
- Grade: 18 / 20
- Awards: ISTA Top Talent - Academic Merit and Excellence Award (2019, 2020, and 2021)

Professional Experience

Invited Teaching Assistant, Iscte - University Institute of Lisbon 09/2022 – present
Instructed bachelor's students in the courses of Theory of Computation and Algorithms & Data Structures. Developed a new practical assessment process and the required tools for the grading of students' programming assignments in the latter course. Lisbon, Portugal

Professional Trainer, Iscte - University Institute of Lisbon 11/2023
Instructed trainees during part of "UpSkill - Digital Skills and Jobs", a professional qualification and employment programme by IEFP in partnership with Iscte. Lisbon, Portugal

Publications

A Domain-Specific Language for Dynamic White-Box Evaluation of Java Assignments 28/06/2024
Authors: Afonso B. Caniço and André L. Santos.
Venue: 5th International Computer Programming Education Conference. Lisbon, Portugal.
Summary: This paper describes the implementation of a Domain Specific Language (DSL) for introductory programming evaluation. We test the DSL against a set of real student assignment submissions to determine if our approach could offer additional insight for evaluation. I presented this paper at ICPEC 2024. *(Recognised with the Best Paper Award.)*

Witter: A Library for White-Box Testing of Introductory Programming Algorithms 19/10/2023
Authors: Afonso B. Caniço and André L. Santos.
Venue: ACM SIGPLAN International Symposium on SPLASH-E, 2023. Lisbon, Portugal.
Summary: This paper describes the need for, development, and demonstration of the practical feasibility of a white-box software testing and feedback generation library for introductory programming assignments. I presented this paper at SPLASH-E 2023.

Skills

Object-Oriented and Functional Programming (Java, Kotlin, Python, C#, Scala), **Software Testing** (Beta Testing, Test-Driven Development, Software Evaluation), **Development Environments** (IntelliJ IDEA, Visual Studio IDE, Visual Studio Code, Pycharm), **Document Preparation** (LaTeX, Overleaf)

Certificates

Introduction to Complex Analysis, Wesleyan University, through Coursera 07/2020 – 09/2020