

# Afonso Manuel Barral Caniço

## Software Engineer, PhD Candidate

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### 🎓 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)

### 💼 Work Experience

**Invited Teaching Assistant,** Iscte - University Institute of Lisbon [🔗](#) 09/2022 – 01/2025  
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