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Sex Female | Date of birth 19 June 1990 | Nationality Portuguese

EDUCATION AND TRAINING

February 2014 – Present

PhD in Computer Science

Imperial College London - Imperial College London, South Kensington Campus, London SW7 2AZ

My PhD is about memory management, and about how we can use type systems to improve garbage collection and memory allocation. Please find more about it below.

September 2011 – November 2013

MSc in Informatics Engineering (specialisation in Software Engineering)

Grades: 17 (0 - 20)

Faculty of Sciences, University of Lisbon, Lisbon (Portugal)

Compiling Techniques, Software Reliability, Software Design, Middleware Technologies, Software Security, Web Applications, Algorithms Design and Analysis, Software Verification and Validation

Master thesis: A concurrent programming language with session types.

September 2008 – July 2011

Undergraduate degree in Informatics Engineering

Grades: 14 (0 - 20)

Faculty of Sciences, University of Lisbon, Lisbon (Portugal)

WORK EXPERIENCE

01 February 2014 – Present

PhD Student/Research Assistant – Imperial College London

Imperial College London, South Kensington Campus, London SW7 2AZ (UK)

Research Assistant/PhD student in the Department of Computing at Imperial College London, supervised by Professor Sophia Drossopoulou.

My work can be divided in three parts: 1) how a type system for data race freedom, and the properties of actor-based languages can be used to ensure safety and efficiency of a fully concurrent garbage collector. I have worked on the formalisation of such protocol, on its correctness proofs, and on its evaluation. 2) a framework that allows the programmer to use annotated types to express how data should be organised in memory, in order to improve cache performance, and to keep the code modular and high-level. I have worked on the design of such a framework, formalisation and proof of correctness, and I am currently working on its implementation and evaluation. 3) the interplay between the garbage collector of part 1 and the framework of part 2.

Project: European Project UpScale (<https://upscale.project.cwi.nl/>).

01 September 2012 – 31 January 2014

Student/Researcher – LaSIGE Group of Software Systems

LaSIGE, Large-Scale Informatics Systems Laboratory, Informatics Department of the University of Lisbon, Faculty of Sciences, Lisbon (Portugal)

I developed a concurrent programming language with refined session types. I worked under the supervision of Professor Vasco Vasconcelos.

SePi programming language - <http://gloss.di.fc.ul.pt/sepi>

Projects: INTERFACES (<http://gloss.di.fc.ul.pt/interfaces>) from 01/09/2012 to 31/12/2012; MULTICORE (<http://gloss.di.fc.ul.pt/types-multicore>) from 16/12/2013 to 31/01/2014

01 September 2011 – 31 August 2012

Student/Researcher – NLX Group

Natural Language and Speech Group of the Department of Informatics of the University of Lisbon, Faculty of Sciences, Lisbon (Portugal)

In this project, I worked with a grammar for computational processing of the Portuguese language

(<http://nlxgroup.di.fc.ul.pt/lxgram/>). I worked under the supervision of Professor Antonio Branco.

European Project: METANET4U - <http://metanet4u.eu/>

PAPERS AND PUBLICATIONS

- 2016 - Juliana Franco, Tobias Wrigstad and Sophia Drossopoulou. Towards Enabling Low-Level Memory Optimisations at the High-Level with Ownership Annotations. IWACO'16.
- 2015 - Sylvan Clebsch, Sebastian Blessing, Juliana Franco and Sophia Drossopoulou. Ownership and Reference Counting based Garbage Collection in the Actor World. ICOOLPS'15.
- Juliana Franco and Sophia Drossopoulou, Behavioural types for NUMA, PLACES'15.
- 2014 - Juliana Franco, Sophia Drossopoulou and Nobuko Yoshida, Calculating communication costs with Sessions Types and Sizes, ICCSW'14.
- 2013 - Juliana Franco and Vasco T. Vasconcelos, A concurrent programming language with refined session types, In Behavioural Types, p. 33-42, 2013.
- Juliana Franco, A concurrent programming language with session types, Master Thesis, University of Lisbon, 2013.

PERSONAL SKILLS

Mother tongue(s) Portuguese

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C1	C2
Spanish	A2	A2	A1	A1	A1

Certificate of a Spanish language course in Cervantes Institute of Lisbon. Grade 9 (0 - 10)

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
[Common European Framework of Reference for Languages](#)

Computer skills

Programming languages: Java, C, Haskell, SQL, Javascript, Android, Scala, Pony, Shell script
Technologies and frameworks: Xtext, HTML, CSS, XML, JSON, LaTeX, Eclipse, JUnit, Git

ADDITIONAL INFORMATION

Service

- Co-Chair of International Workshop on Aliasing, Capabilities and Ownership 2017
- Organiser of the Imperial College Computing Student Workshop 2017
- Member of ICOOLPS17 Program Committee
- Member of NOOL16 Program Committee
- Chair of Imperial College ACM Student Chair 2016-2017
- Athena SWAN PhD rep for the Department of Computing (Imperial College London)

Conferences (and respective co-located events) attended
 Summer Schools and other events

ECOOP'14, ECOOP'15, ECOOP'16, ESOP'15, POPL'16

Betty Summer School 2014, School of Formal Methods 2015, Virtual Machines Summer School 2016; Google PhD Student Summit on Compiler & Programming Technology 2016.

Programming Contests

Participation in MIUP'2011 and MIUP'2012 representing the Faculty of Sciences of University of Lisbon, as well as in several TIUPs

MIUP is the most important programming contest in Portugal.