

# AFONSO PINTO CARDOSO RAFAEL

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## EDUCATION

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**Masters in Computer Science**, Faculty of Sciences of the University of Lisbon  
- Relevant Coursework: Compilation Techniques, Domain Specific Languages, Quantum Computing.

**B.S. in Geospatial Engineering**, Faculty of Sciences of the University of Lisbon 2016 - 2020

**Drumming**, International Drum Academy 2016 - 2020

**High School**, Colégio de São Tomas 2004 - 2016

## EXPERIENCE

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**Intern Researcher** September 2022 - March 2023  
IMDEA Software *Madrid, SP*

- Build relational benchmarks for Liquid Haskell, a compiler plugin that extends Haskell's type system with refinement types.
- Wrote a paper section describing the benchmarks.
- Contributed with solving a bug in liquid-fixpoint ([Pull Request](#))

**Research Fellowship** January 2022 - July 2022  
LASIGE *Lisbon, PT*

- [Freest](#) is a functional programming language that uses session types for safer communication.
- Developed a compiler for the Freest language, targeting JavaScript (Built with Haskell).
- Built a test suite for the compiler.
- [Best Poster](#) - 1st, LASIGE Workshop'22.

**Summer with science (Research Fellowship)** August 2021  
LASIGE *Lisbon, PT*

- Built programs with Freest that later got into the testing suite.
- Found bugs and reporting them during development.

**Software Developer (Intern)** 2019 - 2020  
Think Future *Lisbon, PT*

- Built a system to manage aerial information for control of drone flight (Python).

**Data Science (Intern)** August 2019 - September 2019  
ITC Faculty of Geo-information Science and Earth Observation *Enschede, NL*

- Wrote data processing code using Dask, an open-source Python library for parallel computing.
- Lectured practical classes on the Institute.
- Processed geographical information for decision making.

## SKILLS

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<b>Programming languages</b>	Haskell, Typescript, Python, C, Lisp
<b>Technical Skills</b>	Compiler design and implementation, Web Development, Data processing
<b>Soft Skills</b>	Enjoy speaking with people, Enjoy presentations and public speaking

## EXTRA-CURRICULAR ACTIVITIES

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## Discord Admin/Event Manager

DevPT

2020 - Present

*Lisbon, PT*

- Participated in the devPT talks as Manager.
- Participated in the devPT as Speaker ([Eu uso Emacs, roast me.](#))
- Moderate and Help make decisions on the Discord platform.
- Help manage social media.

## MUSIC

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### Drummer

AZMA

2019 - 2023

*Lisbon, PT*

- Play drums and help compose the songs.
- Help manage the social accounts and project contacts.
- Participated on the recording of songs like: [Akadom](#)

### Guitarist

Split Objects

2022 - 2023

*Lisbon, PT*

- Support guitarist for the band.
- Help with gigs.

### Drummer

PodPop

2017 - 2019

*Lisbon, PT*

- Played drums and helped compose music.
- Helped record the video clips.
- Participated on the recording of songs like: [Is It Love Or Sacrifice](#), [BlackOut](#), [Spoon Of The Gods](#).

### Guitarist

Why Knot

2016

*Lisbon, PT*

- Played guitar and helped compose music.
- Participated on the recording of songs like: [Nothing Concrete](#).