# CV - Jan Mas Rovira

# PERSONAL DATA

BIRTH: 12th of January 1993, Vic, Catalonia.

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## ACADEMIC HISTORY

Current | Master in Pure and Applied Logic

September 2018 | University of Barcelona

July 2018 | Master in Innovation and Research in Informatics (Spec. Ad-

VANCED COMPUTING), 120 ECTS

Polytechnic University of Catalonia with an exchange period of 1 year

(60 credits) at Chalmers University of Technology, Sweden.

Grade: **9.1/10** 

July 2015 | Bachelor's Degree in Informatics Engineering, 240 ECTS

Polytechnic University of Catalonia

Grade: 8.12/10

## LANGUAGES

CATALAN Native ENGLISH Fluent SPANISH Fluent July 2018 Master's Thesis: Automatic Inductive Equational Reasoning

Report: https://gitlab.com/janmasrovira/master-thesis-doc/blob/

master/final-report.pdf

Source code: https://gitlab.com/janmasrovira/phileas

Grade: 9.5

*Description*: This projects presents Phileas, an automatic theorem prover capable of inductively proving equations on Haskell terms.

The prover itself is implemented in Haskell.

This project was supervised by Albert Rubio Gimeno.

#### SEPTEMBER 2017 COLLABORATION WITH THE CAKEML PROJECT.

https://cakeml.org/

Description: CakeML is a formally verified compiler for a substatious subset of Standard ML. I collaborated with the CakeML team at Chalmers University under the supervision of Magnus Myreen in the efforts to optimize a compilation stage of the CakeML compiler.

## July 2017 Co-author of a research paper.

https://www.researchgate.net/publication/318200476\_Jutgeorg\_Characteristics\_and\_Experiences

Description: This paper explains the experiences of using an online judge developed and used in teaching at the Polytechnic University of Catalonia. My contribution was the implementation of a Haskell code analyzer that checks some constraints on the code that the students submit.

#### MARCH 2017 AN OCAML BACKEND FOR AGDA.

https://gitlab.com/janmasrovira/agda2mlf

Description: Initial efforts to implement an OCaml backend for the Agda programming language. Development has been continued in the official Agda repository.

This project was done in conjunction with Frederik H. Iversen under the supervision of Ulf Norell at Chalmers University of Technology.

## JULY 2015 BACHELOR'S THESIS: Automatic Static Analysis of Haskell Programs.

Report: (In Catalan) https://upcommons.upc.edu/handle/2117/79657? locale-attribute=ca

Source code: https://gitlab.com/janmasrovira/haskal

Grade: 8.8

Description: This project presents the implementation of an automatic Haskell code analyzer capable of transforming certain functions into a tail-recursive function (under some assumptions). Additionally, it can also find in some cases a strictly recursively-decreasing arithmetical expression that proves termination.

This project was supervised by Albert Rubio Gimeno.

- PERSONAL BLOG: https://janmasrovira.gitlab.io/ascetic-slug/ Description: Personal blog where I write about topics that I find interesting. I would like to highlight the post An Agda eDSL for well-typed Hilbert style proofs.