

# Diogo Sousa

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## PERSONAL INFORMATION

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NAME Diogo Miguel Gaspar de Sousa  
BIRTHDATE April 21, 1989  
NATIONALITY Portuguese

## PROFESSIONAL EXPERIENCE

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### Feedzai, Lisbon *Scala Backend Developer*

2014 – 2017

Worked as a *Scala* backend developer in a small team that developed *Feedzai Cloud*. *Feedzai Cloud* is a fraud prevention service that uses machine learning to score transaction according to their likelihood of being fraudulent.

## EDUCATION

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2011 – 2013 **Computer Science Master's Degree**  
*Universidade Nova de Lisboa*  
FINAL GRADE 17  
THESIS GRADE 19  
THESIS TITLE Preventing atomicity violations with contracts

2008 – 2011 **Computer Science Bachelor's Degree**  
*Universidade Nova de Lisboa*  
FINAL GRADE 17  
Received an excellence scholarship in the third year.

2013 **MOOC Course — CS191x: Quantum Mechanics and Quantum Computation**  
*edX*  
FINAL GRADE 94%

2010 **Summer Course — Applied Functional Programming**  
*Universiteit Utrecht*  
A two-week course on functional programming with *Haskell*.

## ACADEMIC EXPERIENCE

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2014 Worked on a research project with an FCT scholarship on improving the atomicity violation detection tool developed in the master thesis.

2008 – 2013 Worked with Prof. João Lourenço and other students in a Transactional Memory research group. This was done under multiple research scholarships (2 ROPES, 1 UROP, 1 FCT).

First author of 3 papers and contributions to 6 other papers (some of them can be found on [DBLP](#)).

Teacher of the practical lessons of the “Introduction to Programming” course.

## SOFTWARE PROJECTS

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**RPDS** A crate for fully persistent data structures in *Rust*.

**FREEIRCD** An irc server written in *C*.

**STRAVA PR** A tool written in *Scala* that analyzes runs from your *Strava* account.

**CONTRIBUTIONS TO HEXCHAT** Several contributions to the *Hexchat* irc client. In particular the support for the irc extension *server-time* and many improvements in *url* recognition.

**PINGUESCOFS** A simple, persistent, user space file system written in *C*.

**CDSC** A data structures library written in *C*.

**DBFI** A *brainfuck* interpreter and compiler written in *C*. The compiler generates *x86 assembly*.

**POTATOCHESS** A *P2P* chess game written in *C++* with a nice *GTK+* user interface.

## TECHNICAL SKILLS

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PROGRAMMING LANGUAGES *Scala, C, Rust, Java, Python, Shell scripting, C++*

SOME CONTACT W/ *Haskell, x86 assembly, Ocaml, Idris, Spec#, Coq, Prolog, Perl*

OTHER LANGUAGES *SQL, L<sup>A</sup>T<sub>E</sub>X*

## MISC

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Participation in many official programming contests (1 International Olympiads in Informatics, 2 Southwestern Europe Regional Contest, 5 Portuguese Inter-University Programming Marathon, 2 National Olympiads in Informatics).

About 300 programming challenges solved in *UVa Online Judge*.

More about me on [my personal website](#). You can also a detailed *long curriculum vitae* there.