

DANIEL DÍAZ CASANUEVA

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<http://daniel-diaz.github.com>

- SKILLS
- **Personal:** Self-learner, intelligent and creative. Passionate about everything I do. Especially interested in applying Functional Programming to Real World problems.
 - **Programming languages**
 - * Expert: *Haskell*, HTML, CSS, \LaTeX .
 - * Experienced: C, SQL, Pascal, PHP, OCaml.
 - * Introduced: Prolog, JavaScript.
 - **Development platforms and tools**
 - * Platforms: Windows, Linux and Mac OS X.
 - * Tools: Git, Vim, Microsoft Office, Adobe Photoshop, Corel Draw Suite, GIMP.
 - **Programming experience**
 - * Data (de)serialization.
 - * Network programming.
 - * Parallel algorithms.
 - * Stream processing.
 - * Domain Specific Languages (DSLs).
 - * Concurrent programs.
 - * Data Analysis.
 - **Languages:** Fluent English and Spanish.

- ACHIEVEMENTS
- Contributor of the **Haskell Communities and Activities Report (HCAR)** from the nineteenth (November 2010) to the twenty-third edition (November 2012).
 - **Assistant editor** (November 2012 to 2013). Topology textbook written by Frédéric Mynard and Szymon Dolecki.
 - **Layout editor** (October 2012 to 2013). The Southern Praxis, Georgia Southern University newsletter.
 - **International Student Exchange Program (ISEP)** academic merit scholarship (May 2012).
 - **MMORPG scripter and system administrator** (2010-2011/2014-present) in a Ragnarok Online private server.
 - **Filakada Leadership Convention**, Organizer (August 2010, January 2011, August 2011). Two days event where more than 2000 people enhanced their social and leadership skills.
 - **Research assistant** (November 2008 to June 2009). Computing statistical reports on aminoacid sequences using Haskell.

- EDUCATION
- **Midlands Graduate School**
The University of Nottingham, University of Leicester, University of Birmingham, The University of Sheffield.
Category Theory, Denotational Semantics, Typed Lambda Calculus, Theory of Randomised Search Heuristics, Homotopy Type Theory, Logical Relations and Parametricity.
More Info.
2014

- **Bachelor in Mathematics**
Universidad de Málaga
2007-2013
- **Algorithms: Design and Analysis**
Stanford University
Coursera online course (January 2013 to March 2013).
- **Bachelor of Science in Mathematics**
Georgia Southern University
ISEP exchange student 2012/2013.

WORK EXPERIENCE

- **Tutorial writer.** FP Complete (June-July 2013).
 - * Write interactive tutorials about web applications for professional programmers, with Haskell as the language of choice. See samples [here](#) or [here](#).
- **Tutor in Mathematics** (September 2007 to now).
 - * Assist high school students to improve their mathematical skills.
 - * Prepare graduate students for the GRE test.
 - * Teach Mathematics to college undergraduate students.
- **Audio mastering engineer** and **Music composer.** Freelance (August 2004 to now).
 - * Mix and enhance music quality for the audience.
 - * Compose instrumental tracks for different groups.
 - * Perform as a DJ in concerts.
 - * Editor in a Georgia Southern University radio show.
- **Graphic Designer.** Lumitel (October 2007 to July 2008).
 - * Design illustrations using Corel Draw and Adobe Photoshop.
 - * Communicate with clients through phone conversations and in person meetings to assure customer satisfaction.
 - * Typesetting, proof reading and color adjustment of images.
 - * Use of full color digital printer and copier.
 - * Manual crafting of cartels.

RELEASED PROJECTS

- **haskintex:** A program to evaluate Haskell code within LaTeX documents.
- **processing:** Interactive web graphic applications with *processing.js* as backend. Everything from a safe and typed interface, written in Haskell.
- **HaTeX:** Domain Specific Language (DSL) of L^AT_EX, written in Haskell. It includes many combinators and techniques to generate well-formed L^AT_EX code.
- **DTC:** DTC (Data To Class) is a theoretical library which transforms systematically data declarations to class definitions.
- **Clipboard:** Simple library for Windows users of Haskell that want to manage their system clipboard.

RECENT PROJECTS

- **wavy:** Sound library, written in Haskell. It includes methods for audio encoding, decoding, synthesis and manipulation. Programmed with efficiency in mind, it is able to manipulate big files in constant time.
- **haskintex:** A program to evaluate Haskell code within LaTeX and possibly other languages.