# André VIDELA

Functional Programmer / Aspiring Type Theorist

#### Personal Data

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#### Вю

Fascinated by programming languages, I seek excellence, correctness and beauty in code. I work a lot in Idris and Haskell trying to build real-world software out of provable programs. My deepest interests lie in type systems and programming language theory and design.

#### Work Experience

| Ост. 2019 - | Research at StAndrews University (Scotland)  |   |
|-------------|--|---|
| Current     | In the context of a Msc(res), I am currently studying new ways of using a type system with linear types to generate performant bytecode using the Idris2 compiler.   | Idris   |
| Feb. 2019 - | Software Engineer at Statebox (Remote)   |   |
| CURRENT     | Development and maintenance on a Purescript web application. Development, maintenance and design of Open Source libraries in Idris including implementations and proofs for protocols such as multibase and multihash. Participated in the development of the core engine implementing formal definition for categories and their properties. Maintainer of typedefs, a protobul competitor leveraging the algebra of types. | Idris, Purescript,<br>Category theory,<br>Type theory |
| Apr. 2018 - | Backend Developper at Bity SA (Neuchatel)  |   |
| DEC. 2018   | Lead a new project from scratch to production which aimed to provide<br>a common API for interacting with cryptocurrency nodes. The goal was<br>to enable easy management of additional cryptocurrencies and provide<br>strong guarantees about the business logic by leveraging the Haskell type<br>system and using thorough testing practices.  | Haskell   |
| Ост. 2017 - | Mobile Developper at Krown SA (Geneva)   | Swift, Rx   |
| Jan. 2018   | Developed and maintained iOS app for business customers  | Swiit, itx  |
| Ост 2016 -  | Software Engineer at Sicpa (Lausanne)  |   |
| June. 2017  | Designed, developed and maintained internal and public APIs and libraries for iOS. Developed and maintained small and medium scale iOS apps using agile Scrum.   | Swift, Obj-C  |

## (Programming) Languages

| Mastery      | Idris                 | F'RENCH:           | Mothertongue    |
|--------------|-----------------------|--------------------|-----------------|
| Excellent    | Scala, Swift, Haskell | English:           | Fluent          |
| Intermediate | Clojure, C++, C, JS   | SPANISH:           | Good speaker    |
| Beginner     | Coq, Rust, Agda       | Japanese, Italian: | Basic knowledge |

### EDUCATION

| 2019 - 2020 | Msc(res) at StAndrews University (ongoing)  |
|-------------|---|
| 2017 - 2019 | Licence in Computer Science at Unidistance (remote)                                   |
| July 2017   | EUTypes summer school (Coq, Agda, HoTT, $\lambda$ -calculus)                          |
| May 2017    | Introduction to Logic by Stanford University on Coursera. statement of accomplishment |
| 2012 - 2016 | Attended Bachelor in Computer Science at EPFL   |
|             | Collected 131 credits   |
| 2007 - 2012 | Maturité Gymnasiale (physique et application des math)                                |

## TALKS AND PUBLIC WORK

| SEPT. 2019 | Gave a short talk about $\mathit{Typedefs}$ for the 3rd Statebox Research Summit  | Idris        |
|------------|---|--------------|
| Feb. 2018  | Interviewed for the Corecursive podcast: 007 - Total Programming Using Swift with Andre Videla                            | Swift, Idris |
| DEC. 2017  | Gave a talk about Idris and dependent types at the Software verification meetup.  | Idris        |
| Aug. 2017  | Presented work on <i>Total Parser Combinators</i> by Nils Anders Danielsson for a small local conference (VOD on youtube) | Idris, Agda  |