

— Arthur Xavier —

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Innovative and highly-adaptable engineer with 5+ years of experience writing resilient, correct and scalable software solutions. I believe the most successful systems are those built on top of well-thought and composable foundations that simplify the implementation of new features while promoting developer productivity, correctness and security.

Skills

Haskell, PostgreSQL, React, PureScript, JavaScript, TypeScript, HTML, CSS, Persistent, Esqueleto, Servant, C#, Python, Git, domain-driven development, test-driven development, Linux, OpenGL & GLSL, Unity3D.

Languages

Portuguese, English, German, French, Spanish.

Experience

AUG 2018 – JUL 2021 Staff Software Engineer

Lumi

Worked with a distributed and remote team on internal administration tools and from conception to release and maintenance on a marketplace for custom-manufactured packaging.

- Worked closely with product managers, designers and key stakeholders on the development and implementation of new product features from database schemas and REST APIs to web-based UIs, quickly iterating on and helping refine new requirements.
- Led the design and implementation of a database access layer in Haskell, which achieved notable improvements on developer productivity, composability and type-safety, and which enabled extra securing and optimization of database queries.
- Helped architect and drive the implementation of a React-based UI component library written in PureScript.
- Collaborated on the implementation and led the maintenance of an embedded DSL for building composable and type-safe React forms.
- Helped plan and drive the execution of a tech roadmap for the engineering team, onboarded and mentored new hires.

FEB 2018 – JUL 2018 **Full-Stack Engineer**

Dito

Lead developer of a successful CRM and point of sale web platform built with React and Firebase from prototype to production.

- Managed a two-person team using an Agile methodology.
- Responsible for building a library of UI components for the new visual identity of the company's products.
- Built ETL pipelines for processing e-commerce telemetry data.

DEC 2015 – MAR 2017 **Research & Development Intern**

take

Lead front-end developer of the [blip.ai](#) portal, a platform for creation and management of chatbots written in JavaScript with Angular.

- Built a library of components for the new visual identity of the company's products.
- Collaborated on the implementation of features in a distributed system written in C#.
- Led the design and development of the JavaScript implementation of the [Lightweight Messaging \(LIME\) Protocol](#) using a test-driven methodology.

OCT 2015 – MAR 2016 **Freelance Full-Stack Web Developer**

Bitfusion.io

Development of web applications with the MEAN Stack and design of static web pages.

OCT 2013 – JUN 2014 **Undergraduate Researcher**

VerLab, Universidade Federal de Minas Gerais

Research on *Rendering and Simulation of Underwater Environments* in the Computer Graphics area with a paper accepted to the ICPR 2014 conference: [Generalized Optical Flow Model for Scattering Media](#).

Development of an Android prototype application for the generation of 3D models from two-dimensional sketches: [Modelr](#).

Education

2013 – 2018 **Bachelor in Computer Science**

Universidade Federal de Minas Gerais

2014 – 2015 **Computer Science Exchange Student**

Technische Universität Dortmund

2010 – 2012 **Technical High School in Informatics**

CEFET-MG

Talks

- 18 JUN 2019 **Type-safe embedded domain-specific languages**
[Monadic Party 2019](#)
- 21 OCT 2017 **On programs and functions: thinking abstraction**
[InterCon 2017](#)
- 23 JUN 2017 **Functional programming in JavaScript: how and why?**
[JS Experience 2017](#)
- 30 MAR 2017 **Functional programming for applications: thinking correctness**
[19º Encontro Locaweb Belo Horizonte](#)

Interests

Programming languages

Practical applications of advanced type systems and functional programming. Making use of statically typed functional programming languages to build safer and more composable systems.

Web development

Declarative UIs, composable UIs, formal models of UIs, WebGL, rich web experiences, compile-to-JS languages, component libraries, scalable architectures, API design.

Graphics programming

Non-photorealistic rendering, game development, procedural generation, generative art and experimental interactivity.

Music production

Language learning