

## My life story isn't conventional...

For example, I never graduated from college. I was, however, the youngest person to ever have interned at SAP AG, at the age of eleven, and later went on to become one of the **youngest students to finish German high school**, at the age of 15.

Over the past **eleven years**, I've had the opportunity to acquire a broad range of professional experience. I ventured across different fields, such as **back- and frontend, mobile, embedded systems and tooling**; provided consultancy services, trained developers and supervised projects; and participated in projects for clients like **Media-Saturn-Holding GmbH** and **Deutsche Telekom AG**, Europe's largest electronics retailer and telecommunication provider, respectively.

Today, I specialise in **language-agnostic** solutions and getting projects back on track. I'm always **keen on challenging assignments** and **new technologies**, and I would appreciate the chance to prove my skill set.

*Personal profile: digital nomad, open to working on-site and remotely. German / Brazilian dual citizenship. Native speaker of German and Portuguese; fluent in English; intermediate knowledge of Spanish.*

## Professional Experience

### Technical Lead | Financesoft GmbH | Remote-First

Jan 2021 – Sep 2022

**Startup** for handling KYC (know your customer) documents; long-term goal of full automation. **Led a complete rewrite**, using modern technologies for a desktop-like experience. Set up agile development processes.

Architected and led the implementation of a microservice to store and process files, **reducing the execution time of large exports from 3 - 5 minutes to 15 seconds**.

Developed libraries in strategic areas: (a) GraphQL **synchronisation library for a UX like Google Docs**; (b) Vue.js drag-and-drop framework supporting files and nesting, giving the app a native feeling.

*Vue.js, ES6 & TypeScript, Apollo GraphQL. Laravel, PHP 7, Docker, PostgreSQL. AWS Lambda, S3 for file processor. GitLab CI, AWS CloudFormation and Netlify for continuous delivery (CI / CD). Kanban for agility.*

### Senior Software Consultant | Effective GmbH | HQ in Mannheim, Germany

May 2018 – Apr 2020

B2B marketing agency; **offices on three continents**. Clients include **KUKA AG**, a leading industrial robotics and automation supplier, and **Mitsubishi Chemical Advanced Materials AG**.

Hired to improve proprietary CMS infrastructure. Responsible for **training and leading junior developers**.

Achieved a **4x increase in request throughput** and a **40% decrease in page load times**: (a) refactored a C extension to reduce memory usage; (b) optimised hot code paths and caches. Learned a lot by diving deep into CRuby's source code.

Redesigned architecture to bundle website code and CMS extensions, instead of running patched copies, substantially **lowering implementation and maintenance costs**. (Unfinished due to the COVID-19 pandemic.)

*Ruby on Rails, MongoDB, Backbone.js. In-house CMS built on top of LocomotiveCMS. Ruby C extension.*

### Senior Software Engineer | Storecast GmbH | Berlin & Hamburg, Germany

Jan 2016 – Jun 2017

Agency for **hard- and software** solutions in the retail sector. Clients include **Media-Saturn-Holding GmbH**, Europe's largest electronics retailer, and **Ballspielverein Borussia 09 e. V. Dortmund**.

**Team Point of Sale:** Develop hard- and software for embedded systems such as e-shelf-labels and video walls.

Developed a **self-service kiosk for MediaMarkt, deployed to 500+ stores** across Europe. Created an iOS companion app.

Built a modern drop-in replacement for two-line cash register displays, deployed to 800+ MediaMarkt locations. **Reverse-engineered protocol** to enable connection via serial interface, mitigating regulatory constraints.

Created a modular platform for developing POS devices, **reducing time to market by up to 40%**. Implemented remote monitoring and management tools, later **used on 10k+ IoT devices**.

Established the Raspberry Pi as the primary deployment target, replacing multiple proprietary systems and leading to a **reduction of 20% in production costs**.

*Raspberry Pi, Debian. C for low-level and real-time extensions. Chromium & HTML/CSS/JS for UI. Ruby for Docker-like tooling and remote maintenance API. iOS for companion apps. For legacy reasons: Java, Spring Boot, H2 database, JRuby.*

**Project Juke Apps:** Rewrite a collection of Android & iOS multimedia apps for MediaMarkt, with 20+ developers.

Created a small, **cross-platform C++ framework for mobile apps**, applying MVVM and reactive programming patterns. (React Native was less than one year old.)

Participated in relaunching a music streaming app and **architected** some of the interfaces and systems at its core, including **streaming, playback and encrypted local storage**.

Learned how to **communicate efficiently and manage projects** in corporate environments. Relied heavily on SCRUM.

*Android, Java, Kotlin. iOS, Objective C, Swift. C++. RxJava/RxCpp. AES. Jenkins for CI / CD. Adobe RMSDK, an EPUB3 library.*

**Software Engineer | Quimron GmbH | Stuttgart, Germany**

**Feb 2014 – Feb 2017**

Agency for digital transformation. Clients include **E.ON SE** and **Deutsche Telekom AG**, Europe's largest telecommunication provider. Freelance contract. Hired to help meet deadlines on an **e-learning platform** for Telekom.

Then: designed a matching algorithm and backend for a **dating app**; ported a B2B webshop to JRuby for offline distribution (that's 2014); **consulted on topics ranging from UX to monetisation concepts**.

*Ruby on Rails, MySQL, Redis, Elastic Search, jQuery. Git. TDD. Many REST APIs.*

**Software Engineer | Akpool GmbH | Berlin, Germany**

**Mar 2012 – Oct 2012**

A leading online shop for historical postcards. Modernised Ruby on Rails e-commerce stack, automating many processes. Improved stability and responsiveness, achieving 99.99% uptime. **Trained newly hired web developers**.

**Software Engineer | Preyer GmbH | HQ in Kronberg im Taunus, Germany**

**Oct 2011 – Dec 2011**

Renowned financial IT consultancy firm; offices in Germany, Switzerland and Canada. **Over 200 financial institutions as clients**, including Bank of Nova Scotia, Deutsche Bank AG and Commerzbank AG.

Developed a Java **framework for quantitative finance tools**, interfacing with SimCorp Dimension, integrating C++ libraries such as QuantLib, and providing licensing and auto-update.

## Other Relevant Experience

**#hacking** Gained access to a **government agency's Oracle DB via SQL injection**. Reverse-engineered a bicycle-sharing app for free rides. Exploited a billion-dollar corporation's keycard system for **unlimited building access**.

**#games** Designed **algorithms to solve puzzles** like snake cubes. Used Julia (language) and C# / .NET in the past.

**#education** Bachelor of Computer Science. **University of Hagen**, Germany. (Incomplete, see objective statement.)

**#2020** Digital **health insurance broker MVP** for a Brazilian startup. Ruby, Vue.js and GraphQL. **Designed UI in Adobe XD**. Built a web scraper to get data from the insurer's intranets, mitigating a lack of API access.

**#2020** Keyless motorcycle ignition and storage lock, controlled via an app and RFID wristbands. **Designed electronic schematics and mechanical parts**. Programmed microcontroller and Android app. Applied **ISO/IEC standards to write an Android-interoperable driver** for the NFC reader.

**#2015** Recruitment chat app MVP for ICTJob Deutschland GmbH, a large job board. Rails, Slack API, WebSockets.

**#2012** Custom **smart home locks and lighting**. Repurposed FritzBox, custom firmware, Android app, lots of soldering.

**#2011** Ranked among **50 best out of 999**; German Federal Contest in CS. **First paid project**, at Hochwarth IT GmbH. :)

**#2009** Water gun turret, built out of a pressure washer, a robotics kit and a webcam. Java Applet for remote control, OpenCV to detect and **auto-shoot at moving objects**. (At the age of 13.)