# tiagokatcipis

software engineer

## contact

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## languages

English, Portuguese

## programming languages

Go, C, C++, Python, Lua, Bash, Javascript, Nash

## protocols

HTTP, gRPC, SIP, RTP, AMQP

## cloud

Kubernetes, AWS, Azure, Google Cloud, Docker, Terraform

## automation

Ansible, Make

## dev environment

Vagrant, Docker Compose

## monitoring

Prometheus, Grafana, StatsD, Sysdig

## Introduction

I'm a curious programmer that likes to explore different ways to design, build and test software always trying to understand as much as I can from the entire environment I'm working in. That led me to do a lot of different things in my 10 years career, from embedded software in C to distributed systems in a variety of languages and protocols. I'm passionate about automation and minimalism when building scalable, efficient and flexible software.

## experience

**2019–present  FromAtoB**                                        Berlin, Germany
*Software Engineer - Search2Book Team*

- Implemented new location service from scratch.
- Added PSD2 compliance on payment method storage service.
- Helped migrate core services from legacy environment to new GKE cluster.
- Built backup routines for critical service (Google Memorystore).
- Improved development environments making them more consistent.
- Integral part of the hiring process doing interviews and pair programming sessions.

**2017–2019  Neoway**                                        Florianópolis, Brazil
*Software Engineer - Data Platform Team*

- Led the migration of the entire data platform from AWS to Azure.
- Developed tools to automate building infrastructure, like klb.
- Created new service to solve audio captchas (Go, Python, SVM).
- Prototyped image captcha solver using TensorFlow.
- Did 3 different presentations in 2 different conferences.

**2015–2017  Neoway**                                        Florianópolis, Brazil
*Lead Software Engineer - Data Capture Team*

- Led development of a new data capture architecture.
- Implementation of multiple services for the new architecture (Python, Go).
- Added improved and fully automated monitoring system (Sysdig, StatsD).
- Coached the team on better testing practices and TDD.
- Fully automated dev environments and deployment (Docker, Docker Compose).
- First team on the company to deploy and use Kubernetes to manage more than 100 deployments.

| 2012–2015 | **Dígitro** | Florianópolis, Brazil |

*Lead Software Engineer*

- Developed VoIP phone with color touchscreen from scratch (C on a Blackfin DSP).
- Automated development environment for cross compilation (Ansible, Vagrant).
- Replaced legacy audio service that used Flash (RTMP) with an HTTP/HTML5 solution (NodeJS,C).
- Coached team on automated testing and TDD.

| 2010–2012 | **Dígitro** | Florianópolis, Brazil |

*Software Engineer*

I started working on a solution to web audio playback with very specific audio effects (like silence removal, change in pitch) that had to be developed using Flash (RTMP). To solve that problem I worked with two different open source C++ projects that did reverse engineering of the RTMP protocol to develop our own Flash Media Server. I worked directly with the integration of the server playback logic with Gstreamer and the plugins that enabled the desired effects on playback.

The next project was a solution to biometric identification using a third party C library that built and scored voice models. I developed a REST service in Lua that integrated with C code that built the voice models and used MongoDB to store the voice models and perform searches on the database.

| 2008–2010 | **Dígitro** | Florianópolis, Brazil |

*Trainee*

Helped in the development of an cross platform (Windows and Linux) audio streaming library for a VoIP softphone, aiming at porting the current application that was Windows only to Linux. I also got involved in the development of a prototype for a voice biometrics system.

| 2007-2008 | **Cyclops / LAPIX** | Florianópolis, Brazil |

*Trainee*

Worked on adding new features on the system responsible to integrate medical equipment to the DICOM system, developing a cross platform domain specific graphical XML editor. This involved learning C++ and XML parsing, together with developing cross platform GUI applications, on this case using WxWidgets. The code has been tested using CppUnit.