TiagoKatcipis

Software Engineer

Contact

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Education

Bachelor of Computer Science, UFSC, Brazil.

Languages

English, Portuguese.

Skills

Software architecture and design.
Critical thinking and problem decomposition.
Clear communication, written and spoken.

Programming Languages

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

Protocols

HTTP, gRPC, SIP, RTP, AMQP.

Automation and Infrastructure

Kubernetes, AWS, Azure, Google Cloud, Docker, Terraform, Ansible, Make, Vagrant, Docker Compose.

Monitoring

Prometheus, Grafana, StatsD, Sysdig.

Introduction

I'm a curious programmer who 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, reliable and maintainable software.

Experience

2019–2020 **FromAtoB** Berlin, Germany
Software Engineer - Search2Book Team

- Implemented new location service from scratch (Go, HTTP, gRPC, Prometheus).
- Helped migrate core services from legacy environment to new GKE (Google Kubernetes Engine) cluster.
- Built backup routines for critical service (Google Memorystore / Redis).
- Solved bugs and improved resiliency of core search services.
- 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 about Go and Kubernetes.

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 (Go).
- Implementation of a web scraping framework used to build more than 100 scrapers (Python).
- Built automated monitoring system with domain specific metrics (Sysdig, StatsD).
- Coached the team on better testing practices and TDD.
- Fully automated dev environments and deployment (Docker, Docker Compose).
- First team in the company to deploy and use Kubernetes to manage more than 100 deployments.

2010–2015 **Dígitro** Florianópolis, Brazil
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).
- Built new REST service to integrate with company PBX solution (proprietary protocol).
- Built a customized audio playback system (Flash, RTMP, GStreamer, C++).
- Built a biometric identification service (HTTP, Lua, C, MongoDB).
- Coached team on automated testing and TDD.

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

- Worked on making Windows only VoIP softphone cross platform (C, GStreamer, RTP, SIP).
- Prototype of biometric identification service (Python, GTK, C).
- Prototype of face detection system with processing on the edges (C, OpenCV).

Projects

mdtoc https://github.com/madlambda/mdtoc
A very simple table of contents generator for markdown.

nash https://github.com/NeowayLabs/nash
Nash is a shell language focused on simplicity and having a nicer syntax than traditional shells and support to containers. It also strives to be safer than traditional shells.

klb https://github.com/NeowayLabs/klb
klb is used to automate infrastructure creation on AWS and Azure.

Presentations

2018 **Object Orientation in Go** The Developers Conference
Presented the Go object model as something closer to the original idea from Alan Kay then classic object oriented languages like Java and C++. Presentation source can be found here.

2016 **Building Resilient Services in Go** GopherCon Brazil
Presented new features on Go, like Contexts, that helps to model timeouts and cancellation properly, which are essential to build a resilient system.

Presentation source can be found here.

2016 **Real Life Kubernetes** The Developers Conference
On this presentation we will give a short introduction on Kubernetes and show the experience of learning and using Kubernetes on production.
Presentation source can be found here.