Kajetan Rzepecki

[ka'jɛtan ʒɛ̃'pɛt͡sci]

Resumé (as of August 7, 2018)

 Cracow, Poland
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Skills & Qualifications

spoken languages	**English** (CEFR C1, FCE certified), German (CEFR B1, self-study), Polish (native)
software design	**Actor Model**, **Functional Programming**, Microservices, OOD, REST, SOA
programming	C/C++, Clojure, D, Erlang/OTP, Java, PostgreSQL, Python, **Scala/Akka**, Scheme
web related	Comet/Push, Elm, JavaScript, **React/Flux**, **TypeScript**, WebRTC
electronics	AVR, Eagle CAD, GHDL/gtkWave, Lab Equipment Usage, VHDL
toolchain	Ansible, **Docker**, **Emacs**, **Git**, **GNU/Linux**, LaTeX
workflow	**Agile**, Continuous Integration, Gamification, **GTD**, Org-Mode

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Software Development Experience

StackState BV (Xebia Group)

2018-03 – present

Fullstack Engineer, *Consultant*

I'm helping to make IT Operations accessible and pleasant. Main responsibilities:
- Developing and maintaining company's core product's backend using Scala and Akka.
- Building and maintaining a frontend application using TypeScript and React.
- Integrating with different data sources, including ElasticSearch and Splunk.

Spartan Works

2016-05 – present

Founder

Current focus is **full-stack** and **dev-ops** consultancy in various fields of the industry. Internal projects involve programming language research & development as well as hardware design.

Coya AG

2017-10 – 2018-02

Fullstack Engineer, *Consultant*

I helped create a next-generation insurance company. Main responsibilities:
- Developing and maintaining core microservices using Scala/Akka and Cats.
- Introducing Wartremover to the backend code.
- Building a responsive frontend application using Elm.
- Integrating Stripe.js into the frontend application.

Ratel.io (Contactis Group Sp. z o. o.)

2016-05 – 2017-10

Software Engineer, *Consultant*

I was building an AI- & WebRTC-powered VoIP communications platform - Ratel. Main responsibilities:
- Architecting, setting up & maintaining the Ratel infrastructure using Docker and Ansible.
- Introducing Wartremover and Scalastyle to most of the backend code.
- Developing and maintaining several core microservices using Scala/Akka, Cats and PostgreSQL.
- Building and maintaining a WebRTC-heavy, JavaScript-transpiled TypeScript SDK.
- Developing a frontend application using TypeScript, React & Redux.
- Interviewing and mentoring new developers.

Ubiquiti Networks Poland

2014-10 – 2015-12

Software Developer, *Payments team*

I was developing the UCRM product (formerly airCRM) for Ubiquiti's WISP customers. Main responsibilities:
- Developing and maintaining a PCI-DSS-compliant payments processor in Clojure/Ring and PostgreSQL.
- Integrating with Authorize.Net, Stripe and PayPal payment gateways.
- Integrating payments with the rest of the UCRM billing system.
- Maintaining and refactoring of several other microservices in Python/Django as well as Erlang/OTP.

Brainly.com (Zadane.pl Sp. z o. o.)

2014-05 – 2014-08

Erlang Developer / DevOps, *Acceleration team*

Main responsibilities:
- Stress-testing, refactoring and fixing uncovered bugs.
- Creating Ansible provisioning scripts for automated Hive deployment.

2013-05 – 2013-09	**Erlang Developer Intern**, *Acceleration team*

I was optimizing the company's main products' backend - a Comet/PUSH server. Main responsibilities:
- Developing and maintaining a generic Socket.IO server called Hive, using Erlang/OTP and Redis.
- Building a custom, highly parallel stress-testing tool, Flood, along with various test scenario scripts.
- Writing detailed technical documentation using LaTeX.
- Preparing an Open-Source release of both Hive & Flood.

Open Source projects

2015-01 – 2018-04	**The FOOF programming language experiment**

A programming language compiler & runtime environment I started developing during my masters thesis research, which I later released as an open source project. Its goal is to create a spartan compiler & a runtime system for a Lisp-like language, useful as a playground for testing new programming language features.

2015-11 – 2016-03	**λ-blog**

A static site generator *generator* written in Clojure & JavaScript emphasizing **customizability** & **hackability**. It features: composable HTML generators, Twitter Bootstrap, Markdown support & a hacker-friendly way to **override anything and everything** without much hassle.

2013-05 – 2014-08	**Hive & Flood**, *Zadane.pl sp. z o.o.*

Hive is a highly scalable, Socket.IO-based Erlang web server designed to be used as a back-bone for various modular **Comet applications**. It provides an easy client session management, fast **Publisher/Subscriber** channels and a robust **plugins facility**. *Flood* is a complimentary, fully-featured load simulator suitable for automated Comet application stress-testing in a **continuous integration** environment.

Education

2014-02 – 2015-09	**Master of Engineering in Computer Science:**
	Engineering of Intelligent Systems,
	Faculty of Electrical Engineering, Automatics, Computer Science and Biomedical Engineering,
	AGH University of Science and Technology, Kraków, Poland
thesis title	**Design of a programming language with support for distributed computing on heterogenous platforms.**
description	Project aims to develop a *platform aware* (as opposed to platform independent) programming language for distributed computing with automatic knowledge propagation in a highly dynamic, redundant & heterogenous environment such as the Internet of Things.
thesis grade	**5.0**/5.0
final grade	**4.5**/5.0
2010-10 – 2014-02	**Bachelor of Engineering in Computer Science**,
	Faculty of Electrical Engineering, Automatics, Computer Science and Biomedical Engineering,
	AGH University of Science and Technology, Kraków, Poland
thesis title	**Implementation of a virtual machine for functional programming languages with support for concurrent computing.**
description	Project based on the Three Instruction Machine (TIM abstract machine) with Actor Model extentions aiming for memory safety and high-speed asynchronous communication with no memory copying.
thesis grade	**5.0**/5.0
final grade	**4.5**/5.0

Hobbies

- Experimental computer archaeology
- Electronics & hardware design
- Programming Language design
- GTD techniques & Gamification