Marko Pacak

C++ / Java / Python
Computer Scientist

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birth date	01.06.1991
citizenship	swiss / croatian

Freelance Software Engineer   Berlin (DE), since 03.2018

Bryter GmbH   since 06.2020

`jvm` `kotlin` `aws` `openfaas` `gitlab-ci` `docker` `gradle`

- integrations for their decision-making platform
- APIs interfacing (to name a few) DocuSign, iManage
- support in development of their integration framework

NextBigThing AG   since 01.2020

`python` `docker` `django` `flask` `iot` `gitlab-ci` `pandas` `aws`

- APIs and algorithms for energy consumption and generation
- APIs interfacing inverters, meters and other hardware
- pandas-based framework for data scientist
- python serverless functions linked to django / flask apps
- design of AWS Cognito-based authentication system
- sensor-reading embedded python deployed in METR MGate

Digital Career Institute GmbH   09.2020 - 02.2021

`javascript` `typescript` `node` `react`

- web-development / programming teacher & 1-to-1 tutor

Auxolar GmbH   03.2018 - 01.2020

`python` `c++14` `raspbian` `make` `docker` `django` `embedded`

- algorithms for automated turn-on/off of energy inverters
- embedded c++ & python components deployed in gateways (e.g: raspberry or METR M-Gate)
- Django app for calculation and displaying of energy consumption/generation data

Assetmax AG   06.2018 - 06.2019

`java` `python` `aws` `spring` `oauth` `docker`

- integration of authentication protocols (Kerberos, ...)
- system hardening
- integration of the Assetmax software within banks

Assetmax AG   06.2017 - 06.2018 Lugano / Zurich (CH)

`java` `python` `angular` `aws` `spring` `oauth` `android` `docker`

- micro-services in Spring
- API development: financial computations, asset management, stock trading, ...
- penetration testing and system hardening: worked with one of the largest IT-Sec companies in Europe
- financial data APIs integration: Bloomberg, SIX, …
- integration of authentication protocols within banking systems: OAuth, Kerberos, SPNEGO, …
- management of external front-end teams in development of new user interface
- scripts in Python / Bash. E.g. automated LetsEncrypt SSL certificate deployment within distributed banking systems

IQ Center SA / Cloudbead SA   07.2016 - 06.2017 Lugano (CH)

`java` `angular` `aws` `android` `spring` `c++14` `ffmpeg` `gstreamer`
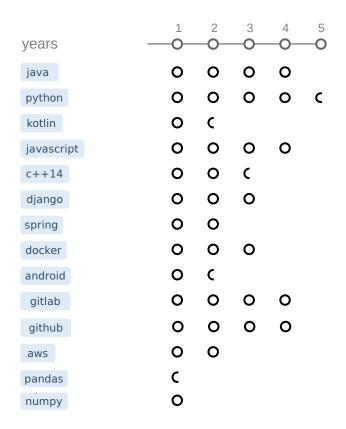
- development of file-hosting service built on AWS
- development of back-end software for media processing
- Support in software development for parent company IQ Center SA
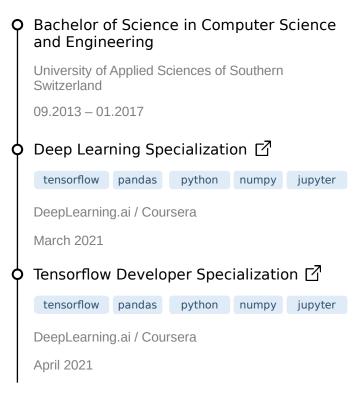
BSI Bank SA (now EFG Bank)   01.2013 - 09.2013 Lugano (CH)

`plsql` `linux` `sql-server`

Technologies

		1	2	3	4	5
years		○	○	○	○	○
java		○	○	○	○	
python		○	○	○	○	☾
kotlin		○	☾			
javascript		○	○	○	○	
c++14		○	○	☾		
django		○	○	○		
spring		○	○			
docker		○	○	○		
android		○	☾			
gitlab		○	○	○	○	
github		○	○	○	○	
aws		○	○			
pandas		☾				
numpy		○				

Languages

	1	2	3	4	5
italian	○	○	○	○	○
english	○	○	○	○	
german	○	○	○		
bosnian/ croatian	○	○	○	○	○

Qualifications and certifications

Bachelor of Science in Computer Science and Engineering

University of Applied Sciences of Southern Switzerland

09.2013 – 01.2017

Deep Learning Specialization ↗

tensorflow   pandas   python   numpy   jupyter

DeepLearning.ai / Coursera

March 2021

Tensorflow Developer Specialization ↗

tensorflow   pandas   python   numpy   jupyter

DeepLearning.ai / Coursera

April 2021

Contributions highlights

RenderThread vs UI Thread in Android: In-depth explanation ↗

java   android   multithreading

Creating memory leaks in Java using a TreeMap: charts and memory analysis ↗

java   jmm   data-structures

IT Security: NTML vs Kerberos tokens debugging ↗

java   it-security   active-directory

Nano: jump to the end of file ↗

linux   nano