



**Marko Pacak**  
Senior Software Engineer  
AWS Certified Developer

## Contacts / Portfolios

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<https://github.com/markopacak>  
<https://linkedin.com/in/markopacak>  
<https://stackoverflow.com/users/8524301/marko-pacak>

## Languages

Italian	○	○	○	○	○	native / bilingual proficiency
English	○	○	○	○		full professionally proficiency
German	○	○	○			professional working proficiency
Bosnian	○	○	○	○	○	native / bilingual proficiency

Born: 01.06.1991

Nationality: Swiss / Croatian

## Professional Experience

### Galeria Kaufhof Karstadt GmbH Senior Software Engineer

python typescript docker node jenkins aws

Berlin (Germany), since 09.2022

- Designed and developed REST API (Typescript, AWS API Gateway, Lambda, ECR, ECS, DynamoDB)
- Ported code from Golang to Node/Typescript and Python

### NextBigThing AG Senior Software Engineer

python docker django flask iot node gitlab-ci pandas aws

Berlin (Germany), 09.2021 - 09.2022

- Designed REST API (Python, AWS API Gateway, Lambda, EC2, AutoScaling)
- Programmed transformations/analysis Lambdas processing sensor data (Pandas, IoT Core, Kinesis Streams, Lambda, S3)
- Developed and managed CI/CD pipelines (GitLab CI, AWS CodePipeline / CodeBuild / CodeDeploy)
- Designed end-to-end solutions and back-ends for IoT/Data services (AWS API Gateway, Kinesis, ECS, Lambda, ELB, SQS, SNS, S3, RDS, DynamoDB, Cognito, Cloudwatch alarms)
- Mentored the team on AWS services
- Helped create a unified framework (back-End template/IaaS) that was used by more than 5 IoT ventures in NBT

### Freelance Software Engineer

Berlin (Germany) / Switzerland, 03.2018 - 09.2021

#### Bryter GmbH 06.2020 - 09.2021

jvm kotlin gitlab-ci openfaas docker gradle aws

- Developed the bryter platform/framework
- Integrated 3rd party APIs: DocuSign, iManage, British commerce register...
- Mentored external developers on how to use the framework
- Helped improve multiple version of the Bryter framework that is now used by more than 50 clients worldwide

#### NextBigThing AG 01.2020 - 09.2021

python django flask gitlab-ci docker pandas aws

- Designed REST API: algorithms/calculations of energy consumption and generation (AWS Lambda/EC2)
- Developed a framework for data scientist (Pandas, Numpy, EC2, Lambda)
- Designed end-to-end solution and back-end services for the IoT industry (Python, Pandas, AWS Cognito, Lambda, EC2, SQS, RDS)
- Developed embedded software for reading sensor data (Python, METR M-Gate)

#### Digital Career Institute GmbH 09.2020 - 02.2021

typescript javascript node react

- Programming teacher for a web-development curriculum
- Tutored students on typescript and version control system

#### Auxolar GmbH 03.2018 - 02.2021

python c++ raspbian make docker django embedded

- Developed algorithms for remote devices: management/monitoring of heating, smart-submetering, ..
- Developed embedded C++/python components deployed on remote boards (e.g: raspberry or METR M-Gate)

#### Assetmax AG 06.2018 - 06.2019

python java aws spring docker oauth

- Integrated the Assetmax software in banking systems

- Developed the Assetmax software (Java, Python, AWS)

## Assetmax AG Software Engineer

python java angular aws spring docker oauth android

Lugano / Zurich (Switzerland) 06.2017 - 06.2018

- Developed micro-services (Java, Spring, On-Premise Servers, AWS EC2, ELB)
- Designed APIs for financial computations, asset management (Java/Python, On-Premise Servers, Lambda, EC2)
- Managed external front-end teams
- Integrated authentication protocols in banking applications: OAuth, Kerberos, SPNEGO, ...
- Integrated 3rd party API into Assetmax software: Bloomberg, SIX, ...
- Ran penetration attacks and hardened banking system: worked with one of the largest IT-Sec companies in Europe
- Helped automate the release of the Assetmax software within banking networks

## IQ Center SA / Cloudbead SA Junior Software Engineer

java angular aws spring c++ ffmpeg gstreamer

Lugano (Switzerland) 07.2016 - 06.2017

- Developed a low latency file-management-sync application on AWS (EC2, S3, Lambda)

## BSI Bank SA (now EFG Bank) Back-Office Employee

sql-server linux plsql

Lugano (Switzerland) 01.2013 - 09.2013

- Automated queries for customer data retrieval in PLSQL
- Automated processes/queries on the banking platform Avaloq

## Education

### Bachelor of Science in Computer Science and Engineering

University of Applied Sciences of Southern Switzerland (SUPSI)

Lugano (Switzerland) 09.2013 - 01.2017

BA thesis: Real-time streaming of video content over UDP/TCP using the gstreamer (C++) framework

Supervisor: Prof. Leidi Tiziano

## Certifications

- [AWS Certified Developer Associate](#)  
Amazon Web Services Certification Center, September 2022  
Credential number: Y5SHLSTC5JV41DWD
- [Tensorflow Developer Specialization](#)  
DeepLearning.ai / Coursera, April 2021
- [Deep Learning Certification](#)  
DeepLearning.ai / Coursera, March 2021

## IT Skills and years of experience

• java	○○○○	4 years
• python	○○○○○	5 years
• kotlin	○○	1 ½ years
• js/ts	○○○○	4 years
• c++	○○	2 years
• django / flask	○○○○	4 years
• spring	○○	2 years
• docker	○○	2 years
• gitlab / github	○○○○	4 years
• aws	○○	2 years
• pandas / numpy	○	1 year

## Community Contributions

- [RenderThread vs UI Thread in Android: In-Depth explanation](#)
- [Create memory leaks in Java using a TreeMap](#)
- [IT Security: NTLM vs Kerberos tokens debugging](#)
- [Nano: jump to the end of file](#)