

# Martin Ricken

Nationality: Danish  
YOB: 1983  
Languages: Danish (Native), English (Fluent)  
Roles: Software Architect – Senior Developer - Lead Developer

## Consultant Profile

I am a solution-oriented developer who has worked with many frameworks and languages. I am an expert in PHP and Python 3, but I also have experience with Javascript, C++, and Java. When talking about frameworks, I've worked a lot with Django and Flask (Python 3) and Laravel, Symfony, and Drupal (PHP).

I started working as a developer in 1999 by working on personal websites for friends and family using HTML/CSS and Javascript. During my education, I worked as a freelancer and quickly developed a taste for different server-side languages. It nourished my need to create when I worked with clients, and while the projects were small, the satisfaction of completing projects and solving previously unsolvable problems was a great joy.

I have great respect for order and the elegance of simplicity. When designing solutions, I try my best to solve simple problems with simple solutions because I believe the more complex a solution becomes, the less likely it is to survive for very long. When I became aware of microservices, I saw the possibilities immediately, but I also recognized the challenge this amount of flexibility can pose if you design a service too large. The flexibility and possibilities increased further with the addition of containerized environments and - more recently - serverless solutions.

### Relevant competencies:

- Python 3.x
- Microservices
- AWS
  - Lambda
  - Cloudformation
  - Codepipeline
  - RDS
  - IAM
  - CloudFront
  - S3
  - Cloudtrail
- Azure
  - Pipelines
  - Functions
- Auth0 / JWT
- Design Patterns
- Solution design (UML)

### Other competencies

- PHP 5.x-7.x
- Laravel 5.x, 6.x
- Drupal 6,7,8,9
- Symfony 4.x, 5.x
- React and Vue.js.
- Agile (Scrum, Kanban)
- Information architecture.
- Docker
- Kubernetes
- Team Lead
- Flask framework
- Kafka/RabbitMQ
- Elasticsearch/Logstash/Kibana

## Experience

### Highlighted experience

2019	<b>Client</b>	Maersk Drilling A/S, Copenhagen
	<b>Role</b>	Senior Developer
	<b>Project</b>	The project was cleaning up a POC of a machine learning application, which, based on sensor data, was supposed to be able to help predict maintenance. Beyond this, the application would be moved to an Azure hosting environment and grab data from a data lake integration. In cooperation with the data analytics employee, we decided to rework the application from the bottom up using SOLID principles and established design patterns. The decision was reached to improve maintenance and scalability of the application.
	<b>Technologies</b>	Python 3, Azure Functions, MSSQL, Azure Data Lake, Kusto Data Explorer (Azure), Docker, Git, Azure Pipelines, Azure DevOps
	<b>Methods</b>	Design patterns, Scrum, DevOps, Agile (SCRUM), Unit testing.

2018-2019	<b>Client</b>	Obviux (Ørsted), Frederiksberg, Denmark
	<b>Role</b>	Senior Developer
	<b>Project</b>	The project was a fairly advanced billing engine built to take care of processing all energy bills for clients of Ørsted. On the project, I worked on an expansion to the API and bug fixes to the engine itself. It was built on Laravel with a CI solution for unit testing and monitoring. Toward the end of the project, I created a serverless application in python for handling API calls from the phone app, which was under development. I also participated in discussions about the IT infrastructure and the general landscape of future API solutions using serverless.
	<b>Technologies</b>	PHP7, Python3, Laravel, Flask, MySQL, AWS Serverless, AWS: SNS – EC2 – SQS – IAM – RDS, JWT, Composer, Docker
	<b>Methods</b>	Design patterns, Scrum, Solution Architecture, Auth0, Microservices, Agile(SCRUM, Kanban), Unit testing.

<b>2017</b>	<b>Client</b>	YouSee, Copenhagen
	<b>Role</b>	Senior Developer
	<b>Project</b>	<p>The project was with the middleware department of YouSee. The main task was working on the transformation of their aging streaming middleware platform. The goal was to replace the entire platform with several microservices to achieve all of the payoffs from doing so.</p> <ul style="list-style-type: none"> <li>• Leading role in the implementation of new asynchronous microservices and architecture.</li> <li>• Leading role in the design and implementation of new security initiatives, using ideas like “security by design” and “least possible surface.”</li> <li>• Developed 6 microservices with responsibilities such as login/auth, cloud recording, and bookmarking/Favorites.</li> <li>• Key role in microservice development for interfacing with the YouSee cloud TV device.</li> <li>• Developed integration, load, and performance testing tools.</li> </ul>
	<b>Technologies</b>	PHP7, Laravel, MySQL, Composer, Redis, REST, JWT, Python3, Flask
	<b>Methods</b>	Solution design, Security by Design, Auth0, Design Patterns, Microservices. Agile (SCRUM, Kanban), Unit testing.

<b>2015</b>	<b>Client</b>	TV2, Odense, Denmark
	<b>Role</b>	DevOps
	<b>Project</b>	<p>The project was to replace a devops engineer while a permanent replacement could be found. The tasks included:</p> <ul style="list-style-type: none"> <li>• Primary contact for the development team.</li> <li>• Create POC on the use of SkyDock and SkyDNS, two container orchestration systems.</li> <li>• Lead discussions on HTTP2 with the DevOps team to share information.</li> <li>• Security review of current server infrastructure, which led to the decommissioning of 4 servers beyond saving.</li> <li>• Demonstration of a pentest, which showed how full access to some vulnerable servers could be achieved.</li> </ul>
	<b>Technologies</b>	Python3, Docker (Skydock), Ansible, CentOS7, ELK Stack, HTTP2
	<b>Methods</b>	Security review, Risk assessment, System hardening, Pen Testing, DevOps, Agile (Kanban)

## Other experience

<b>2022-2023</b>	<b>Client</b>	Lorique Aps, Copenhagen, Denmark
	<b>Role</b>	
	<b>Project</b>	<p>In 2022 I decided to take a sabbatical to focus on my family due to critical illness and multiple deaths in my immediate family. This didn't mean I stopped coding. It just meant I didn't work for clients in 2022, and the early part of 2023.</p> <p>During the year, I worked on setting up my website in a GitHub CI/CD to AWS serverless infrastructure pipeline. I also worked on multiple personal Python AI projects, including NLP and some image analysis to keep my skills sharp. These projects were mostly "keep busy and keep learning" to keep me occupied between family disasters.</p> <p>Recently, I've been working on a project to bridge the gap between those who can pay €10-20.000 for a website and those who can't. The project leverages Serverless infrastructure to minimize cost while also eliminating the need for maintenance and security updates. While working on this I've been using a mix of existing knowledge, but also acquiring new skills and competencies such as working with Google Cloud, GoLang, and NodeJS.</p>
	<b>Technologies</b>	Composer, AWS serverless, GoLang, NodeJS, Python 3, Cloudformation
	<b>Methods</b>	Design patterns, SOLID, CI/CD, DevOps

<b>2021</b>	<b>Client</b>	Aller Media, Copenhagen, Denmark
	<b>Role</b>	Lead developer
	<b>Project</b>	<p>The project was a return to one of my first assignments as a freelancer. The task was to upgrade existing Drupal 7 sites to Drupal 9 and try to keep some form of flexible platform. I worked on viunge.dk, elle.dk, femina.dk and seoghoer.dk. The sites ran on AWS infrastructure using containers, and throughout the process, I helped streamline the containers and try to identify bottlenecks and scaling issues. My role - initially - was as senior developer, but the lead dev left a short while into the project so I took over his duties.</p>
	<b>Technologies</b>	PHP7, Drupal 9, MySQL, Composer, Docker, AWS, jQuery, REST
	<b>Methods</b>	Design patterns, Solution Architecture, Agile (KANBAN),

<b>2020-2021</b>	<b>Client</b>	FFW Agency, Copenhagen, Denmark
	<b>Role</b>	Lead developer / Software Architect
	<b>Project</b>	The project was for the agency's end clients, the municipality of Copenhagen's. FFW had won a contract to build a new main website and intranet, and they required some assistance with solution design and problem-solving. Among other things, the municipality's public meeting minutes and the job listings had to be improved and made searchable on the website. My role was a dual one as both lead developer, and software architect for both the new main website (kk.dk) and the new common intranet.
	<b>Technologies</b>	PHP7, Drupal 9, MSSQL, Composer, Docker, K8s, Azure, jQuery, REST
	<b>Methods</b>	Design patterns, Solution Architecture, Auth0, Agile (SCRUM),

<b>2020</b>	<b>Client</b>	Egmont Publishing, Copenhagen, Denmark
	<b>Role</b>	Senior Developer
	<b>Project</b>	The project was to help with the completion of a new internal platform for organization of B2B purchases. The project had been under development for nine months and was in the final phase. There were three key areas where assistance was required; Migration, Validation of solution architecture, and Performance optimization. In connection with these tasks, OWASP compliance, deployment, and hosting were also covered.
	<b>Technologies</b>	PHP7, Laravel 6, MSSQL, Composer, Docker, React
	<b>Methods</b>	Design patterns, Solution Architecture, Auth0, Agile (SCRUM), OWASP.

<b>2019</b>	<b>Client</b>	Municipality of Copenhagen, Copenhagen
	<b>Role</b>	Senior Developer
	<b>Project</b>	The project was to assist an on-site development team in creating a new internal tool for calculating maternity- and paternity refunds to various departments of the Municipality. The system had to comply with existing and new rules and local rules on the subject. A focus was to integrate this system with systems in charge of payouts, located with an IT vendor to the municipality. Another was to make the system

		more flexible than the current one to allow for a faster turnaround on legal changes.
	<b>Technologies</b>	PHP7, SlimFramework, Docker, MSSQL, Git, React
	<b>Methods</b>	Solution Design, Determination of requirements, Design Patterns, Agile (SCRUM)

<b>2019</b>		
	<b>Client</b>	GLS Kolding, Kolding, Denmark
	<b>Role</b>	Senior Developer
	<b>Project</b>	This was a short-term project, with the simple goal of replacing an older elastic search, and migration of data. Once this was complete, a significant performance boost was achieved with simple changes to how the applications queried the system. Once this was complete, a short education process on new features was also completed.
	<b>Technologies</b>	Elasticsearch, Ansible, Git, Docker, Windows Server 2016
	<b>Methods</b>	Debugging, Education

<b>2019</b>		
	<b>Client</b>	1001biler.dk, Copenhagen
	<b>Role</b>	Lead Developer
	<b>Project</b>	The project was implementing a new site with integration to a 3rd party car sales database and calculation algorithm. The goal of the project was to provide a new, cheaper way of leasing luxury cars.
	<b>Technologies</b>	PHP7, Laravel, MySQL, AWS: EC2, IAM, JWT, Composer, Docker, VueJS
	<b>Methods</b>	Solution Design, Determination of requirements, Devops, Design Patterns.

<b>2018</b>		
	<b>Client</b>	Unity Technologies, Copenhagen, Denmark
	<b>Role</b>	Senior Developer
	<b>Project</b>	The project was maintenance and development of various small and big websites in the Unity landscape. During the project, it became clear that GDPR Compliance was an issue, and I was tasked with aligning this. We made a solution allowing people to submit information or delete

	requests through the website. Other departments of unity would integrate with service to receive the requests.
<b>Technologies</b>	PHP 7, Drupal 8, Redis, MySQL, HTML, CSS, Angular, Git.
<b>Methods</b>	Solution Design, GDPR, debugging, Microservices, Agile (Kanban)

<b>2016</b>	<b>Client</b>	Linkfactory A/S, Copenhagen
	<b>Role</b>	Lead developer / Software Architect
	<b>Project</b>	<p>The project was not sharply defined, as the client needed help on a number of tasks because of a lack of resources and experience. Midway through the assignment, a project focusing on IT security using geolocation became the sole focus.</p> <ul style="list-style-type: none"> <li>● Maintenance of Silex og Symfony OOP API'er for mobile integration.</li> <li>● Built performance-oriented REST API using a new caching approach.</li> <li>● Lead developer on 3 larger projects and software architect on 5 other projects.</li> <li>● Sparring with developers to find good solutions to their projects.</li> <li>● Mentor new developers.</li> </ul>
	<b>Technologies</b>	PHP7, Drupal 7-8, SOAP, REST, ApacheSolr, Memcached, Redis, Symfony 3, Silex, Elasticsearch
	<b>Methods</b>	Caching, Solution Design, Determination of requirements,, Devops, Design Patterns, Security by Design, Information architecture,, Performance optimization, Agile (SCRUM, Kanban), Unit testing.

<b>2015</b>	<b>Client</b>	Medical company, Remote
	<b>Role</b>	Lead Developer
	<b>Project</b>	<p>Due to a very strict NDA, the project can only be described in broad terms. The main tasks included:</p> <ul style="list-style-type: none"> <li>● Development of REST APIs</li> <li>● Integration with Elasticsearch</li> <li>● Data anonymization process.</li> <li>● Setup of hosting and CI with docker containers.</li> </ul>
	<b>Technologies</b>	Silex, Elasticsearch, Ansible, PHP7, REST, CentOS, Docker, Redis,

	Capistrano, Jenkins
<b>Methods</b>	Solution design, Security by Design, Auth0, Design Patterns, Microservices, Agile (Kanban), Unit testing.

<b>2014-2015</b>	<b>Client</b>	Adapt A/S, Copenhagen
	<b>Role</b>	Developer
	<b>Project</b>	<p>The project was not clearly defined, as the client simply needed resources on their development team. Tasks included:</p> <ul style="list-style-type: none"> <li>• Development for clients such as Sportmaster, ATP, and other clients.</li> <li>• Started a systems architect forum for discussion of cross-project solutions to increase productivity and reduce maintenance time.</li> <li>• Assist with determining requirements for mobile solutions created by Adapt Mobile.</li> </ul>
	<b>Technologies</b>	Symfony 2, PHP5, Drupal 7, MySQL, Memcached, Varnish, Redis
	<b>Methods</b>	Solution Design, Security by Design, Information Architecture, Design Patterns, Agile (SCRUM, Kanban)

<b>2014</b>	<b>Client</b>	Linkfactory A/S, Copenhagen
	<b>Role</b>	Lead Developer / Software Architect.
	<b>Project</b>	<p>The project was supposed to be part-time support to a team working on the danish business administration's new website, but only a short while into the project it became clear they needed a more experienced developer than they had available, to act as lead on the project, so this became a full-time project. Time spent on the project was divided into a 50/50 split between information architecture design and development on the project.</p> <ul style="list-style-type: none"> <li>• Made fundamental architecture changes to the platform to better accommodate client needs.</li> <li>• Designed information architecture in cooperation with various area leads inside the business administration.</li> <li>• Design and implementation of the login solution to allow high performance even for logged-in users.</li> <li>• Implementation of agile and quality assurance processes with Linkfactory.</li> </ul>
	<b>Technologies</b>	ApacheSolr, REST, PHP5, Drupal 7, Grails, NemID, MySQL, Memcached.



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<b>Methods</b>	Solution design, Information architecture, Design Patterns, Agile (SCRUM), Unit testing.										

## 1 Courses and certifications

2019-2021 Amazon Web services Cloud Practitioner

## 2 Education

2002-2007 Datafagtekniker (Datatechnician), TEC Ballerup

## 1 Competencies

Competency	Last Used	Level	Years of experience
Python 3	2023	4	6
PHP	2022	5	13
NodeJS	2023	4	1
Javascript	2023	5	12
Microservices	2020	5	5
Memcached	2017	4	5
Linux (Ubuntu)	2021	5	7
Linux (CentOS)	2018	3	3
Laravel (and Lumen)	2023	4	7
Symfony 2&3 (and Slim)	2019	4	5
Redis	2019	5	5
Flask Framework (Python3)	2020	4	6
Amazon SNS, Serverless, RDS	2023	4	7
MySQL	2019	5	11
MongoDB/CouchDB (Document storage)	2023	4	5
MSSQL Server	2020	3	3
Drupal	2021	5	11
Vue.js	2023	4	5
Elasticsearch/Logstash/Kibana	2019	4	3
Bootstrap 3/4	2021	4	6
Skeleton	2017	3	2
React	2023	3	2

**Level:**

5:Expert, 4: Very experienced, 3: Experienced, 2: Some experience, 1: Knowledgeable