Kristian Ø. Martensen

Resume v2020.02

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About

Name
Kristian Østergaard Martensen

Born
1984

IT-experience
14

Languages
Danish, English

Senior DevOps Engineer and container specialist

Senior DevOps Consultant at Efio.
Kristian has worked as a full-time professional in software development since 2007, of which the latest 5 years have been focused on DevOps-enabling technologies.

Kristian helps his clients build a strong DevOps culture in their organizations, building documented and self-documenting systems, as well as instructing both developers and operations, in the principles of automation done right.

Kristian started his career as a backend software developer, however always with a strong focus on difficult subjects involving database performance. This led him to work exclusively as an expert on relational and NoSQL databases for a number of years.

Today Kristian calls himself a site reliability engineer, specializing in keeping large sites available and performant. However, not forgetting his roots, still loving to setup and tweak distributed data stores. And not least, make all systems a bliss for developers to work with and deploy to.

Kristian's area of expertise covers:

- Containerization and container orchestration: Docker Swarm and Kubernetes
- Distributed data stores: Kafka, Cassandra, Elasticsearch, MongoDB
- Public cloud architecture: AWS, GCP, Azure
- Systems performance tuning: GNU/Linux, Network, Databases, File systems

Working areas

	Level	Experience	Last used
Application containerization	5 of 5	5 years	2020
Container orchestration	5 of 5	4 years	2020
Continuous software delivery (CI/CD)	4 of 5	5 years	2020
DevOps	5 of 5	5 years	2020
Distributed data store operations	5 of 5	7 years	2020
Finance and insurance	1 of 5	1 year	2014
Internet	5 of 5	7 years	2020
Marketing	2 of 5	2 years	2019
Public Cloud architecture	4 of 5	5 years	2020
Public Cloud operations	5 of 5	5 years	2020
Public sector	3 of 5	7 years	2019
Relational Database operations	5 of 5	10 years	2020
Retail	3 of 5	3 years	2016
Site reliability	5 of 5	7 years	2020
Software	5 of 5	12 years	2020
Software tool development	4 of 5	12 years	2019
Startup	5 of 5	5 years	2019

Technical skills

		Level	Experience	Last used
<merge>Containers, hypervisors & virtualisation	Docker	5 of 5	5 years	2020
<merge>	Docker Swarm	5 of 5	3 years	2019
<merge>	Kubernetes	4 of 5	3 years	2020
<merge>	LibPod / Podman	1 of 5	1 year	2019
<merge>	LXC	1 of 5	1 year	2014
<merge>	Solaris Zones	1 of 5	1 year	2014
<merge>	XEN	3 of 5	3 years	2014
<merge>	Qemu/KVM	3 of 5	2 years	2014

<merge>	Oracle VM	3 of 5	3 years	2014
<merge>Distributed data stores & relational databases	Cassandra	4 of 5	3 years	2019
<merge>	Kafka	4 of 5	3 years	2020
<merge>	Druid	4 of 5	3 years	2019
<merge>	ElasticSearch	3 of 5	1 year	2020
<merge>	Apache Solr	2 of 5	2 years	2016
<merge>	MongoDB	3 of 5	4 years	2019
<merge>	CouchDB	2 of 5	2 years	2014
<merge>	Berkeley DB	1 of 5	1 year	2012
<merge>	MySQL	5 of 5	10 years	2019
<merge>	PostgreSQL	2 of 5	1 year	2019
<merge>	Oracle DB	2 of 5	3 years	2014
<merge>	MS SQL Server	2 of 5	4 years	2019
<merge>	DB2	2 of 5	5 years	2014

Schneider Electric IT Denmark A/S

2019-11-01 - 2020-12-31
undefined

Data center management and monitoring The Ecostruxure project provides planning, management and monitoring capabilities to the world's largest data centers. The platform receives and processes more than a billion measurements from data center equipment each day, providing realtime insights on data center health to clients.

Responsibilities and accomplishments:

- Introducing infrastructure as code with Terraform
- Implementing GitOps through ArgoCD
- Implementing multi region cluster setups in Azure

Tools and techniques used: Terraform, Ansible, Azure, Kubernetes, Helm, ArgoCD, Jenkins, Auth0, Okta, Elasticsearch, Kafka, Zookeeper, Fluent-bit, Docker, Packer, Prometheus

The Danish IT and Development Agency (UFST)

2019-11-01 - 2020-12-31
undefined

Real estate property valuation The ICE program is implementing real estate property valuation, based on highly complex statistical models. The program will give Danish homeowners an accurate and fair valuation of their properties. On top of the statistical models, the program consists of several applications supporting case workers and property owners.

Responsibilities and accomplishments:

- Primary responsible of performance and availability of public facing application
- Introduction of Kubernetes
- Refactoring of Terraform codebase
- Training of unexperienced engineers
- Finding and implementation of cost reductions
- Performance testing and implementation of performance improvements

Tools and techniques used: Terraform, Ansible, Azure, Kubernetes, Helm, ArgoCD, Jenkins, Auth0, Okta, Elasticsearch, Kafka, Zookeeper, Fluent-bit, Docker, Packer, Prometheus

Linkfire

2018-01-01 - 2018-10-31
undefined

Core infrastructure reimplementation Redeployment of Linkfires most business and performance critical application, serving several million users every day, on entirely new infrastructure. Leading to significantly shorter and safer deployment cycles, and improved performance. Great attention has been paid to the ability, to thoroughly test and performance test the application, as well as making sure every bit of the setup, is described in the source code repository.

Responsibilities and accomplishments:

- Described entire infrastructure as code
- Improved performance
- Enables developers to deploy several times a day
- Containerized application with Docker
- Improved observability

Tools and techniques used: Terraform, Terragrunt, Packer, Ansible, Docker, Docker-compose, Nginx, HAProxy, Amazon Linux 2, SH, K6, Teamcity, AWS: EC2, ALB, IAM, Cloudwatch, Cloudwatch logs, S3, ECR

2016-09-01 - 2018-10-31
undefined

Reimplementation of data pipeline Having evolved from tracking a few thousand clicks per day, to several millions, Linkfires SQL Server data warehouse, was no longer nearly able to stand the distance. Entire data pipeline was reimplemented from scratch, in a well thought out mix of technologies, providing the desired needs for performance, durability and
Responsibilities and accomplishments:

- Introduced horisontal scalability
- Removed single points of failure
- Easily upgradeable infrastructure
- Immutable infrastructure

Tools and techniques used: Kafka, Cassandra, Druid, AWS S3, Terraform, Ansible, Docker Swarm, Ubuntu server, AWS: EC2, ALB, IAM, Cloudwatch, Cloudwatch logs, ECR, SQS

Education and certifications

2007-05-01 Computer science undefined

2010-06-01 DB2 PureXML undefined

2010-02-01 DTU Mainframe undefined

2014-06-01 Certified Oracle Linux undefined

2014-06-01 AWS technical professional undefined

2015-04-01 MongoDB for DBAs undefined

Conferences and seminars attended

2013-05-01 SemTechBiz San Francisco

2014-05-01 Oracle Open World San Francisco

2014-08-01 AWS Summit Stockholm

2016-09-01 RedHat Forum Copenhagen

2018-09-01 AWS developer day Copenhagen

2018-11-15 GOTO; Copenhagen

2019-08-01 AWS Summit Stockholm