Aleksander Nowak

Site Reliability Engineer at Dixa A/S

I am a Software Engineering enthusiast with strong fundamentals of Internet Technologies and practical experience in infrastructure development and rich microservice ecosystems.

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linkedin.com/in/aleknowak

github.com/vyrwu

TECHNOLOGIES

AWS Kubernetes Pulumi TypeScript Docker Prometheus Grafana Kibana Alertmanager

OpsGenie ElasticSearch Elastalert2

WORK EXPERIENCE

Site Reliability Engineer
Dixa A/S

09/2021 - Present   *Copenhagen, Denmark*

Multi-channel Customer Friendship platform for customer service agents.

Achievements/Tasks

- Taken ownership of the area of application alerting, including implementation of team-based routing. Reduced alert notifications by 75% / total alerts by 78%. Reduced MTTAck by 38% / MTTRes by 91%.
- Co-implemented a Pulumi-based infrastructure provisioning platform (AWS/Kubernetes), serving 13 teams (50+ devs).
- Supported a CI platform migration from Jenkins to Github Actions with emepheral self-hosted runners.
- Supported developers with infrastructure-related tasks, and participated in an on-call programme (on&off hours).
- Gave several well-received product update presentations for the SRE team (live&digital, up to 100 participants incl. engineers, management, and non-technical stakeholders).

Contact : Christian Probst - cpr@dixa.com

Jr. Site Reliability Engineer
Dixa A/S

09/2020 - 09/2021   *Copenhagen, Denmark*

(Included one semester of full-time internship and another, writing a Master thesis in collaboration with Dixa)

Achievements/Tasks

- Migrated the AWS and Kubernetes-based infrastructure into Infrastructure-as-Code. Supported the design, production, roll-out, and customer migration of the new infrastructure. which improved elastic application scalability by at least 10x.
- Taken ownership in the monitoring, logging, and alerting systems, configuration management, K8S-based microservice deployments, networking, various cluster autoscaling software, and operational scripts.

Jr. DevOps Engineer
Nordic API Gateway

05/2020 - 09/2020   *Copenhagen, Denmark*

API Platform for integrating with banks and payment processing.

Achievements/Tasks

- Administrated the Azure cloud-native infrastructure and monitoring. Built various automation tools around the cloud and operated monitoring systems running in Kubernetes.
- Facilitated adopting Terraform as the primary infrastructure change tool across the developers. Lead a successful Infrastructure Guild.

WORK EXPERIENCE

Junior Software Developer (BE&FE)
Agillic A/S

02/2018 - 05/2020   *Copenhagen, Denmark*

Omni-channel marketing automation platform.

Achievements/Tasks

- Contributed to a large React&Redux-based Single-Page-Application, and implemented a library of reusable UI components.
- Configured Gitlab CI pipelines for Cypress-based end-to-end tests.
- Contributed to a large Java-based monolithic application.

Contact : Bence A. Tóth - tothab@gmail.com

EDUCATION

BSc & MSc in Engineering
Aalborg University Copenhagen

08/2016 - 05/2021   *Copenhagen*

Courses

- Networking
- Distributed Systems
- Service Architectures
- Application Security

UNIVERSITY PROJECTS

Master Thesis: Applying Chaos Engineering into a Cloud-Native Microservice Architecture (Dixa collab)
- Built a Chaos Engineering platform based on Istio service mesh, injecting latency and error code into cross-microservice communication.
- Produced a comprehensive reliability analysis outlining the application's complex failure modes based on its past incidents.

Next Generation OTT Distribution Architecture Supporting Multicast-Assisted ABR (mABR) and HTTP/3 over QUIC
- Defined requirements for a novel solution in video streaming, utilizing QUIC as a primary transport protocol for the industry-leading IP Multicast architectures supporting multicast-assisted adaptive bitrate (mABR) streaming, enabled by HTTP/3 Server Push techniques.

Research into increasing complexity of Software Development in the public cloud
- Focused on Cloud migration and DevOps methodologies. Performed a set of interviews with industry experts, including: Sam Newman, Ken Mugrage, Uretsky brothers of DigitalOcean, John Granger from IBM and many more.

Bachelor Thesis: Modelling of an Event-Driven Architecture from a Monolith (Agillic collab)
- Produced an design for an Evolutionary Architecture of a monolithic system that transforms it into a fully-fledged Event-Driven Microservice Architecture, following the Domain-Driven Design principles.

Microservices for IoT foosball table startup
- Designed and maintained a simple CI/CD pipeline based on GitHub, Jenkins and docker-compose.
- Developed RESTful microservices in Golang using ArangoDB, Swagger and Docker.
- Developed authentication microservice featuring OAuth 2.0 with OpenID Connect in Golang using JWT and Redis.
- Implemented and maintained Kong API Gateway.

INTERESTS

| Video Games | Progressive Music | Bass Guitar | Spirituality | Investing | Travelling | Blockchain | Fitness |

CONFERENCES

GOTO Copenhagen 2021
CREW
- Hosted conference room activities and announced talks.

SMPTE 2020 (11/2020)
Speaker
- Title of my talk: Next Generation OTT Distribution Architecture Supporting Multicast-Assisted ABR (mABR) and HTTP/3 over QUIC

GOTO Oslo 2020
CREW
- Hosted conference room activities and announced talks.

GOTO Copenhagen 2019
CREW
- Supported the general organization of the event.