## Mats Andresen

- Full-Stack Developer & DevOps Engineer
- 12+ years of experience in software development
- BSc: Computer Science

## Concepts & Methodologies

- Functional Programming, Object-Oriented Programming, Imperative Programming
- Reactive and Concurrent Programming
- Test-Driven Development (TDD)
- Continuous Integration & Deployment (CI/CD)
- Cloud Architecture, Distributed Systems, Microservices
- Platform as a Service (PaaS), Software as a Service (SaaS)
- Infrastructure as Code (IaC)
- Monitoring & Observability
- GitOps
- API Design
- Agile

## Programming & Markup Languages

- Go, Kotlin, Java, Javascript, Typescript, C#, PHP, Lua, Bash
- SQL, PromQL
- HTML, CSS, JSON, YAML, XML

## Frameworks, Components & Tools

- **CI/CD:** GitHub Actions, FluxCD, Concourse CI, Jenkins
  **JVM:** Gradle, Spring Boot, Eclipse Vertx, Ktor
- **JS:** Svelte, SvelteKit, React, VueJS, Angular, Tailwind, NPM, NodeJS, Express
- **Kubernetes:** Istio, Linkerd, KEDA, cert-manager, descheduler
- **Monitoring & Observability:** Prometheus, Grafana (Mimir, Tempo), OpenTelemetry
- **Testing:** Kotest, Junit, Jest, Cypress, Testcafe, Pact, Grafana K6

## Platforms and Infrastructure

- **Cloud Platforms:** Google Cloud, Microsoft Azure, AWS
- **Containerization & Orchestration:** Kubernetes, Docker, Compose
- **Infrastructure as Code:** Terraform, Terragrunt, FluxCD, Kustomize, Helm
- **Databases:** Postgres, MySQL, MongoDB, Redis, Elastic Search
- **Event Streaming:** Kafka, Google PubSub

## Recent Project History

- **Vaillant Group GmbH (3/2023 – 4/2024):** DevOps Engineer in IoT Platform team
- **Media Saturn IT Services GmbH (6/2021 - 10/2022):** DevOps Engineer in E-Receipt team
- **Kitalino GmbH 2/2021 - 6/2021:** Consultation on Architecture, Automatization, and API Development
- **Fielmann AG 7/2018 - 10/2020:** Full-stack Software Engineer in customer order management team
- **Briends GmbH (2018 - present):** Full-stack Software Engineer in various projects

# Project History Highlights

## Vaillant Group GmbH 3/2023 - 4/2024

The Vaillant Group, a family-owned enterprise, stands as one of the foremost global authorities in heating, ventilation, air conditioning, and hot water solutions.

**DevOps Engineer in IoT Platform team**

- Provisioning and overseeing a cloud platform responsible for operating backend services catering to hundreds of thousands of IoT devices
- Designing and implementing a comprehensive monitoring and alerting infrastructure for the platform Ensuring observability of the platform by implementing distributed tracing and log aggregation mechanisms Performing load tests on vital platform components and enabling product teams to conduct similar tests Administering a library of reusable CI/CD workflows for product teams
- Providing guidance and support on topics such as Kubernetes and other distributed cloud technologies Technologies

**Technologies**

Golang, Javascript, Microsoft Azure, Terraform, Kubernetes, Docker, Helm, GitOps, FluxCD, GitHub Actions, Apache Kafka, MongoDB, Prometheus, Grafana (Tempo, Mimir, K6), OpenTelemetry, Elasticsearch, Kibana, IBM Instana, Git, Unix

## Media-Saturn IT Services GmbH 6/2021 - 10/2022

Media-Saturn IT Services GmbH, a subsidiary of the Media-Saturn Group, operates as a service provider, delivering highly efficient and innovative IT solutions both domestically and globally.

**DevOps Engineer in E-Receipt team**

- Developing microservices for managing the lifecycle of fiscal documents
- Supplying and managing a Kubernetes-based infrastructure within the Google Cloud environment Establishing an extensive monitoring and alerting setup for Kubernetes clusters and backend services Provisioning and overseeing CI/CD workflows to automate service and code library build and release procedures
- Refactoring, enhancing, and fully automating acceptance tests to elevate overall service quality and stability Providing mentorship to internal staff to enhance their expertise in Kotlin, Kubernetes, and software testing methodologies

**Technologies**

Kotlin, Eclipse Vertx, Ktor, Google Cloud Platform (GCP), Terraform, Kubernetes, Docker, Gradle, Helm, GitOps, FluxCD, Service Mesh, Istio, Linkerd, GitHub Actions, MongoDB, Redis, Google PubSub, gRPC, Apache Kafka, Prometheus, Grafana, Git

## Kitalino GmbH 2/2021 - 6/2021

Kitalino GmbH, a subsidiary of Herder Verlag GmbH, specializes in providing digital solutions for daycare centers and their affiliated organizations. One of the key offerings of their app Kitalino is the digital development documentation of children.

**Consultation on Architecture, Automatization, and API Development**

- Strategizing transition to a new distributed architecture for enhanced flexibility, scalability, and maintainability Develop new microservice to integrate with daycare management software via REST API Accompany Keycloak integration for user management purposes
- Supporting migration to a CI/CD pipeline with automated acceptance tests covering vital user interactions Technologies

**Technologies**

PHP, Symfony, Javascript, Typescript, Keycloak, Docker, Vue JS, Cypress, MySQL, NGINX, Git, Unix

## Fielmann AG 7/2018 - 10/2020

Fielmann AG is a prominent European optical retailer known for offering a wide range of eyewear products and optician services through its extensive network of retail stores.

**Full-stack Software Engineer in customer order management team**

- Greenfield backend and frontend development of a multi-tenant order management system Design the distributed architecture, following methodologies like domain-driven design, event sourcing, and CQRS (Command Query Responsibility Segregation)
- Design and implement APIs for applications across different bounded contexts
- Establish a CI/CD pipeline capable to deploy each update to production within minutes Implemented a sophisticated monitoring and alerting infrastructure
- Promote test-driven development by employing methodologies such as functional core, imperative shell, hexagonal architecture, and consumer-driven contract testing

**Technologies**

Kotlin, Typescript, React, Spring Boot, AWS, Kubernetes, Helm, Docker, Gradle, Concourse CI, PostgreSQL, Apache Kafka, Prometheus, Grafana, Node JS, Testcafe, Pact, Git, Unix

## Briends GmbH since 3/2018

**Full-stack Software Engineer**

- Participate in public and internal workshops to exchange knowledge and learn new technologies Greenfield backend and frontend development of a web-based multiplayer real-time application for online quiz games
- Develop a digital tool that transforms structured localized data into a comprehensive CV, providing an engaging user experience
- Architect, develop, and upkeep the distributed cloud-based microservices alongside the Papego mobile application
- Improve API design to adhere to RESTful principles
- Develop new features to the app, such as the ability to include commercial content between book pages Technologies

**Technologies**

Kotlin, Eclipse Vertx, Spring Boot, Ktor, Typescript, Svelte, Tailwind, Golang, Google Cloud Platform (GCP), DevOps, Kubernetes, Terraform, GitHub Actions, GitOps, FluxCD, Docker, PostgreSQL, Cypress, Git, Unix, Haskell, Typescript, Javascript, Docker, Angular, Ionic, Node JS, Elasticsearch

## epages GmbH 7/2015 - 3/2018

ePages GmbH provides a widely embraced SaaS (Software as a Service) e-commerce solution tailored for small and medium-sized businesses worldwide.

**Backend Software Engineer in partner integrations / product lifecycle team**

- Design and develop microservices for the product lifecycle of the next-generation e-commerce platform, adopting a greenfield API-first approach in a cloud-based architecture
- Develop and maintain integrations with external service providers like PayPal, Stripe, DHL, FedEx, Sage One Refactor parts of the legacy monolithic codebase introducing unit- and integration tests to improving maintainability
- Promote test-driven development, pair programming, and regular code reviews as vital parts of the software development process
- Creating blog posts for the company's technology blog and engaging in hackathons

**Technologies**

Java, Kotlin, Spring Boot, Google Cloud Platform (GCP), Kubernetes, Docker, Typescript, Javascript, React, Vue JS, Jenkins, NGINX, Perl, Lua, MySQL, MongoDB, RabbitMQ, Elasticsearch, Git, Unix

## Daedalic Entertainment GmbH 9/2013 - 3/2014

Daedalic Entertainment GmbH is a German game developer and publisher known for its narrative-focused video games.

**Internship: Scripting and Programming for the video game "Silence: The Whispered World 2"**

- Staging and scripting of various game content, mechanics, dialogues, and cutscenes Development of features for the game's content pipeline and scriping middleware
- Identifying and resolving bugs within the game's systems and scripting layer
- Prototyping of levels and game mechanics

## Additional information

### Reference Contacts

- **Vaillant Group GmbH:** Nicolas Braun, Isabell Pipper
- **Media Saturn IT Services GmbH**: Kevin Fritz, Christine Weiß
- **Fielmann AG:** Clemens Löscher
- **Kitalino GmbH:** Silas Töpfer