Øyvind Gerrard Skaar

Øyvind is a highly motivated and skilled backend developer and architect. He has been building and operating backend systems for more than 10 years.

While he can take many roles his main passion is working with small teams on new projects where he builds scalable and fast back-end systems from the ground up.

Øyvind has the rare combination of being able to drill into highly technical problems and also take a step back and evaluate business objectives and ROIs of the different solutions.

He takes pride in being a professional and self-driven partner, who takes ownership and drives things forward.

CONTACT INFORMATION

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+47 482 78 480

hello@oyvindsk.com

https://oyvindsk.com

Competence Areas

- Cloud
- DevOps
- Web development
- Agile
- Database

Business Focus

- Greenfield projects
- Startups

Work Roles

- Architect
- Lead Developer
- DevOps
- Database Administrator
- Database Engineer

Industry Knowledge

- Business services
- Software vendors and consultants
- IT
  - Consultancy
  - Cloud
  - Data processing
- Other

EXPERIENCE - INDEPENDENT IT-CONSULTANT

Devbyte AS - Mai 2014 - Present

Øyvind is the owner and sole consultant of this company. Formerly Skaar Solutions (2014-2018)

RELEVANT PROJECTS

Dec 2020 – Jan 2021

HeiPetter – Development of prototype

HeiPetter is a Norwegian startup connecting with a purpose of getting people in difficult situations back to work. They do that through a digital platform, focusing on the talent and building on individual strengths.

Øyvind, with a freelance designer, built a prototype of the web-based platform using standard web technologies, Go, Google Cloud Appengine and Datastore.

Sep. 2020 – Dec. 2020

Shortcut AS - Consultant / Programmer

Shortcut is one of the leading app makers in Norway.

This project was a 3 months contract to help kick-start greenfield projects and strenghten their backend. These projects used Google Cloud Platfrom products and services.

LANGUAGES

Norwegian: Native
English: Proficient

SKILLS

Cloud based back-end architecture:
Microservices, Modular “monoliths”, “Event Driven” etc

Programming languages:
Go (golang)
Perl, Python, PHP, Ruby, C, Assembly

Cloud:
Google Cloud Platform (GCP):
Kubernetes Engine
PaaS: App Engine,

June 2016 - April 2020

reMarkable - Cloud Backend from scratch as Backend developer and Architect

reMarkable is a very successful Norwegian startup. They have created a new type of device, a "paper tablet" to read, write and sketch on. Øyvind started working with them early on, when they were just eight people.

The company has grown to almost 150 people and is valued at 1 billion NOK.

Øyvind was the only person working on the backend for the first few years and built a cloud based backend from scratch. In the last few years the system has expanded and more people have joined the cloud team.

The main feature of the cloud service is syncing notes, drawings and documents from the users reMarkable device to other devices such as phones, tablets and computers. The backend also handles Authentication, Authorization and integration with third party services.

Challenges
- Real-time: Parts of the system require soft real time attributes.
- Novel: Parts of this system are quite novel. This, combined with the typical restricted resources of a startup, means we can not blindly follow "best practices".
- Scale: Large amount of concurrent users.

Reference:

"*Even though he worked as a consultant he immediately took responsibility for and drove the development of our entire cloud solution from the ground up.*
[..]
When Øyvind came in there wasn't a single line of code written, nor any architecture planned. He took on the responsibility for planning and executing what was necessary to go from high-level ideas about what our cloud solution should and could be, to what we have today"

- Martin Sandsmark, CTO

Keywords: Google Cloud Platform, Go (Golang), Event-Driven Architecture, Google Datastore, Google App Engine, NoSQL, Distributed software architecture, Event Sourcing, Api design, Devops

2018 - 2019

reMarkable - Document Synchronization prototype as Backend developer and Architect

Øyvind was part of a small team of 3 developers who prototyped a novel way of synchronizing files across devices (reMarkables, phones, computers etc).

Goals: Achieve fast and correct document synchronization while using as little bandwidth as possible.

They achieved this with known, but somewhat niche methods like Content-Addressable Storage and Merkle Trees.

Keywords: Distributed software architecture, Research, Content-addressable storage, Prototyping, Merkle Trees

Cloud Run
IaaS: Compute Engine,
Autoscaling Instance Groups
etc
Storage and databases:
Cloud Storage (inc. signed urls), Datastore
Cloud Pub/Sub,
Cloud DNS

Digital Ocean
(Iaas, running Docker)

Databases:
Google Datastore,
Cloud Storage
Postgresql
MySQL
Redis

Server daemons:
Installed and administered several server daemons for web, email etc. For the most part open source based, on Linux.

Operating systems:
Linux
OpenBSD / FreeBSD
Windows

Tools:
Docker
Git
SSH etc
Standard Linux and BSD tooling

Active development:

June 2014 - Oct. 2017

Hosting and maintenance:

2015 - Present

Intolife - IntoFood, a sustainable food management system as Sole developer, architect and devops person

Intolife is a small company that helps restaurants cut carbon emissions and save money. Will from Intolife was interview by NRK Dagsrevyen: https://bit.ly/39HzsND

Øyvind has worked with them since 2014 on several successful projects.

Øyvind built and still run their Intofood web application. The main purpose is to save time by helping with data-input and report generation.

The workflow used by Intolife before this project was based on Excel and manual data input. This worked fine. But it was time-consuming and limited the possibilities for interacting with third parties. With this project they created a fully customized web-based application for Intolife.

The goals were to cut down the time required for data entry and to automatically generate reports. The project was developed using lean startup methodologies. This provided more flexibility and saved money by avoiding development of unnecessary features.

Since flexibility was important, the software was developed in phases, with their own milestones. This made it possible to quickly incorporate the lessons learned during development into the project.

Results:

The result was a web-based application that helps with data-input and report generation. This helped Intolife spend approximately 50% less time on each project.

The application is used mainly by Intolife, but it’s also open to other partners and customers.

This project is in production and used by customers, in maintenance mode.

Keywords: Backend development, PostgreSQL, Cascading Style Sheets (CSS), Docker, HTML, Linux, jQuery, JavaScript, Perl, Mojolicious

Dec 2015 - Feb 2016

Schlumberger as Consultant on Google Cloud Platform, Golang and web technologies

Schlumberger is an oilfield services company that employs approximately 100,000 people in more than 120 countries.

Øyvind helped a team in their Asker office transition to new technologies, mainly Google Cloud Platform, Go and web technologies.

Goals: Avoid the most common mistakes and get up and running quicker.

Challenges:

- Legacy software: They were in the early phases of transforming some of their legacy systems to use the cloud. Since legacy systems are not made with the cloud in mind, this typically poses challenges.

- All new tech stack: Beginning with cloud and a new programming language means switching tech stack completely and therefore learning a number of new technologies at the same time. Luckily, the team was talented and there were some easy wins.

Keywords: Google Cloud Platform, Go (Golang), Google App Engine

2015 - 2016

Intolife - Backend REST-like API as Backend developer

"*We are proud to announce the forthcoming release of the integration platform for IntoFood. This will allow existing food service management systems to automatically connect to IntoFood and receive sustainability metrics for menus, sales and purchasing.*"

— Intolife.no/news

This project was launched to make it possible to integrate the Intofood Web Application with third parties. These third parties are typically customers and partners. They can use the API to include waste and emission data (GHG) in their own software and appliances. Using the API they can get this data automatically, without human interaction.

Øyvind designed the REST-like API, and wrote the backend code in Perl 5. He also wrote API documentation and client example code in PHP.

The API was completed and deployed to production on Google Cloud. It is used by IntoLife customers daily and opens up for many new possibilities. Use-cases that would otherwise involve too much human labor are now quick and easy.

This project is in production and used by customers, in maintenance mode.

Keywords: Api design, PHP, Representational State Transfer (REST), Perl, Documentation, Linux, Docker, Backend development, PostgreSQL

May 2015 - Aug 2015

Villoid - Social fashion app as Backend developer

Villoid (previously Sobazaar) was a social fashion and shopping app for Apple devices. They had a fairly large user-base in Norway and expanded to the US autumn 2015. Villoid later changed their business-model to focus on their web-shop.

At the time, Villoid was a startup and things moved fast. They needed someone with backend skills to join their team, but did not have the time to complete a normal hiring process.

Øyvind implemented new features and fixed bugs in their backend. He also worked on scaling the backend and speeding up database queries. The expanding user-base and technical

debt created some unique technical challenges.

Keywords: Python, MySQL, Amazon Elastic Compute Cloud (EC2), Django, Docker

Feb 2015 - Mar 2015

Picterus - REST API design and implementation as Backend developer

Picturus is a medical app designed to diagnose Jaundice in newborns. Untreated jaundice in newborns is responsible for 114,000 deaths and 65,000 permanent brain damages each year.

Cheap treatment is available through e.g. sunlight, but the diagnostic devices in use today cost around 10,000 dollars, making them practically unavailable in low-resource settings.

Picturus therefore developed a smartphone app capable of diagnosing this condition.

Øyvind developed a small part of this app. With his specialty in backend systems he created a REST-like API to support features in the app that relies on something outside the device (phone) itself.

Keywords: Api design, Representational State Transfer (REST), PHP, SQL, SqlLite

OTHER EXPERIENCE

Oct 2005 - Apr 2014

Opoint (now M-Brain) - Backend Developer and DBA

Øyvind developed internal and external facing systems, mainly in Perl and PHP. He was also responsible for system administrator related tasks, such as implementing and maintaining mail and backup solutions.

He also wrote, among other things, a backend Perl application to reliably transfer most of the data going to external customers, REST API's, web-to-pdf programs and an asynchronous Twitter system.

In addition he developed systems and APIs for large scale data-exchange with third parties (B2B) and was part of B2B customer relations.

(Part-time position from 2005 and full-time position from 2010)

Keywords: Linux, MySQL, Perl, PHP, XML, XSLT (Extensible Stylesheet Language), C

2004 - 2005

IT-assistant, part-time — Kristelig Gymnasium

Configured and maintained desktop computers. Provided technical support for employees. Automated Operating System installation.

Sep. 2001 - July 2003

"IKT" intern — Norges Idrettshøgskole

Configured and maintained desktop computers, network (Cisco), thin clients and servers (Windows 2000 and legacy unix systems). Provided technical support for employees and students.

PRESENTATIONS AND PAPERS

2009

"Organized Crime in Virtual Worlds: How to Get your own Syndicate"

Shortpaper and presentation at Nordsec 2009, the 14th Nordic conference on secure IT systems.

http://nordsec2009.unik.no

2009

"Organized Crime in Virtual Worlds"

Academic Forum on Security, November 2009
http://wiki.unik.no/index.php/Infosec/Meeting200911

2009

"Online Games Security with Trusted Computing"

Academic Forum on Security, March 2009
http://wiki.unik.no/index.php/Infosec/Meeting200903

EDUCATION

January 2008 - June 2010

Master of Science in Informatics — University of Oslo and University Graduate Center (UNIK)

Thesis: "*The potential of Trusted Computing for Strengthening Security in Massively Multiplayer Online Games*"
https://www.duo.uio.no/handle/10852/8732

Security related courses: cryptography, operating system security, software security, security in distributed systems.

Other: communications protocols and routing, open source software development with Java frameworks, distributed systems and interactive websites.

Aug. 2004 - June 2007

Bachelor of Science in Informatics — University of Oslo

Software development: Java, python, php, c, c++, fortran, assembly.

Other: databases, computer architecture, tcp/ip, systems development, logic and computability, algorithms and data structures, mathematics, media and communication (computer games, multimodal web-design), human–computer interaction, xml and xlst etc.