Sven Woltmann (Dipl.-Inf.)

Java Scalability and Performance Specialist

Freelancer – Coach – Author of HappyCoders.eu

I'll help your teams design and implement highly **scalable, stable, reliable,** and **maintainable Java backend solutions**.

Profile

I am a Java Scalability and Performance Specialist with 20+ years of professional experience in designing, implementing, and optimizing high-performance, scalable, and maintainable Java backend systems based on Spring or Jakarta EE.

I help development teams build efficient architectures, analyze and resolve performance bottlenecks, and apply Clean Code principles – ensuring that their applications scale reliably while remaining well-structured and easy to maintain.

How I Can Help:

- **Architectural Design & Implementation:**
  Designing and optimizing Java backend solutions for performance, scalability, and maintainability.

- **Performance & Scalability Tuning:**
  Identifying and resolving performance bottlenecks using deep expertise in concurrency, memory management, garbage collection, and JVM internals.

- **Development Support & Coaching:**
  Helping teams refine their coding practices, troubleshoot complex issues, and apply Clean Code principles for maintainable and future-proof software.

- **Training & Workshops:**
  Delivering customized courses on Java performance tuning, modern language features, and best practices to keep teams up to date with the latest advancements.

My Background:

Having worked with engineering teams as a founder, CTO, and consultant, I combine technical expertise with a business mindset.

My work spans designing and implementing complex enterprise solutions from scratch, leading monolith-to-microservice transitions, and optimizing large-scale applications for performance and scalability.

I regularly share my knowledge on HappyCoders.eu and as a speaker at Java User Groups (JUGs) and conferences. You can find an overview of my past talks here.

Contact

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HappyCoders.eu

Main Areas of Expertise

Advanced Java

- Modern Java language features (switch expressions, pattern matching, sealed classes, records, virtual threads, structured concurrency, scoped values, stream gatherers, ...)

- Streams, Lambdas

- Java Collections Framework with its lists, maps, queues, deques, and concurrent collections

- Advanced topics: concurrency, performance, reflection, Java Memory Model, garbage collection, heap dump analyzes

Scalable Backend Solutions, Microservices, Cloud

- Spring Framework (Spring Boot, Spring REST, Spring Data, Spring Cloud)

- Java EE / Jakarta EE / MicroProfile (Glassfish, Payara, Quarkus)

- Providing and connecting to REST APIs (+ GraphQL)

- Integration with relational database systems such as MySQL or PostgreSQL with JPA, Hibernate, Panache, EclipseLink

- Integration with NoSQL systems such as Firestore, DynamoDB, or ElasticSearch

- Amazon Web Services (AWS), Google Cloud Platform (GCP)

Software Craftsmanship, Software Architecture

- Domain-driven design

- Clean Code (SOLID principle)

- Clean architecture / hexagonal architecture

- Test-driven development (JUnit, TestNG, AssertJ, Hamcrest, Mockito, RestAssured, WireMock, Testcontainers, Cucumber)

- Static code analysis with PMD, FindBugs / SpotBugs, Checkstyle, SonarQube / SonarCloud / SonarLint, sshgit, Trivy

- Pair programming

Experiences

● Founder, Author & Speaker
HappyCoders.eu
October 2018 - Present

As the Founder and Author of HappyCoders.eu, I have built a platform to support and inspire the Java development community. My mission is to bridge the gap between theory and practice, making complex programming concepts accessible through well-structured and in-depth educational content.

I regularly publish articles on Java programming, algorithms, and data structures – catering to both beginners and experienced developers.

Additionally, I produce high-quality video tutorials on advanced Java topics, enhancing community learning through engaging visual explanations on the HappyCoders YouTube channel.

Beyond online content, I am an active speaker at Java User Groups (JUGs) and conferences, sharing insights on Java development and best practices with the global developer community. You can find an overview of my previous talks here.

Experiences

● **Java Scalability & Performance Specialist**
ICE International Copyright Enterprise Germany GmbH
March 2023 – February 2025 (2 years)

At ICE Services, a leading provider of financial and data services, my role is to optimize Java applications for scalability and performance in a large-scale distributed environment.

Key Achievements:

● **Database Migration & Optimization:**
Led the migration of several terabytes of data from DynamoDB to PostgreSQL, ensuring data integrity and achieving query speedups of up to 1,000x.

● **Bulk Update Mechanisms:**
Developed highly efficient bulk update functionalities, enabling seamless modifications across thousands of entity aggregates.

● **Asynchronous Processing:**
Transitioned synchronous and asynchronous code to a purely asynchronous model using Mutiny, improving responsiveness and efficiency.

● **UI Performance Optimization:**
Designed and implemented a cache layer leveraging Java 21 and virtual threads to enhance UI responsiveness.

● **Dependency Consolidation:**
Streamlined dependencies across nearly 100 Java repositories, reducing maintenance overhead and enhancing maintainability.

Technologies Used:

Java 21, Spring Boot, Quarkus, Mutiny, Virtual Threads, JPA, Hibernate, PostgreSQL, Amazon Web Services (AWS), Amazon Athena, Amazon DynamoDB, Amazon ECS (Elastic Container Services), Amazon RDS (Relational Database Service), Amazon SNS (Simple Notification Service), Amazon SQS (Simple Queue Service)

Experiences

Java Scalability & Performance Specialist
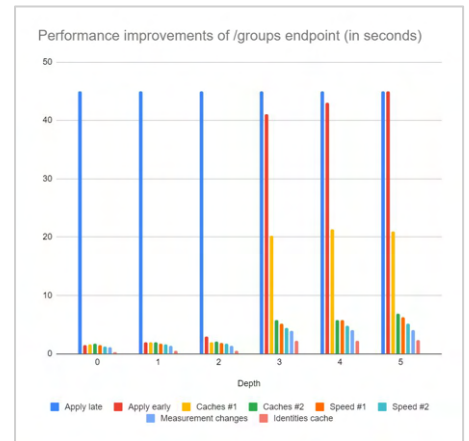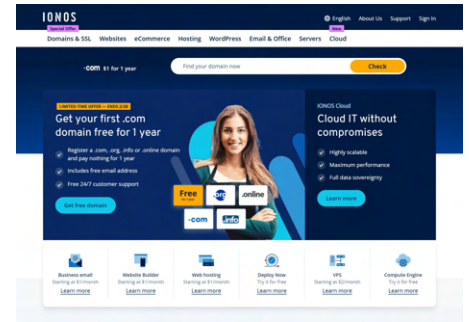**IONOS SE**
August 2019 – March 2023 (3 years and 8 months)

At IONOS, I optimized Java EE backends and REST APIs within the company's IaaS infrastructure. My work focused on **improving system performance**, **driving architectural modernization**, and **coaching development teams** to tackle complex scalability challenges.

Key Achievements:

- Achieved a **50x performance improvement** under load.
- Led the migration to a **modern microservices architecture** using **Quarkus**, ensuring long-term maintainability.
- Designed the **next generation IONOS Cloud API** for enhanced developer accessibility.
- Implemented **zero-downtime deployments** for monolithic legacy components.
- **Coached developers** on modern Java features and best practices in scalability and performance optimization

Technologies Used:

Java, Jakarta EE, MicroProfile, Spring Boot, Quarkus, Glassfish, Payara, JPA, Hibernate, EclipseLink, PostgreSQL, Redis, Infinispan, JWT RBAC Security (MP-JWT), Docker, Kubernetes, Kustomize, Helm, ArgoCD, Traefik

Freelance Java Backend Developer
NextPit GmbH
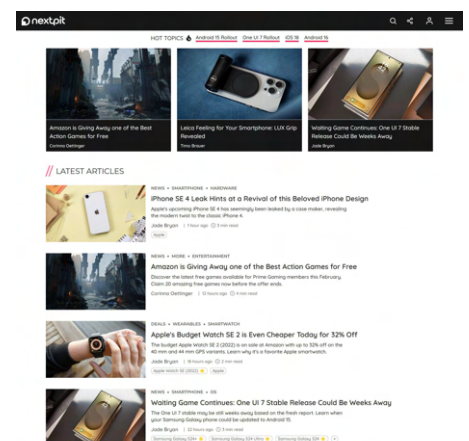August 2019 – July 2023 (4 years)

At NextPit (formerly AndroidPIT), I modernized their digital platform and optimized backend operations.

Key Achievements:

- **Website Migration:** Led the transition from androidpit.com to nextpit.com, ensuring a seamless user experience.
- **SEO & API Optimization:** Adapted the Java-based content management system (CMS) to align with evolving SEO requirements.
- **Feature Development:** Implemented new functionalities to improve user engagement and platform usability.
- **CI/CD Automation:** Migrated build automation from Jenkins to GitHub Actions, streamlining deployment workflows.

Technologies Used:

Java 17, Spring Boot, Spring Cloud, RxJava, JPA, Hibernate, MySQL, Elasticsearch, Filebeat, Kibana, Tomcat, Kubernetes, Docker

Experiences

Founder, CTO, Lead Developer
Fonpit AG (AndroidPIT)
August 2009 – July 2019 (10 years)

Fonpit AG, the predecessor of NextPit GmbH, operated AndroidPIT, the world's largest multilingual Android community. I was responsible for defining and executing the company's technology strategy, ensuring scalability, security, and innovation in a rapidly evolving market.

Key Achievements:

Technology Leadership & Team Building

- Established and led an agile IT team of up to 15 engineers.

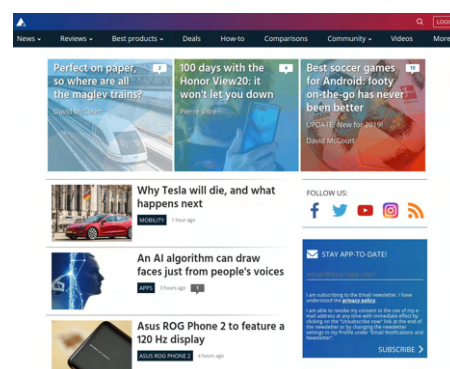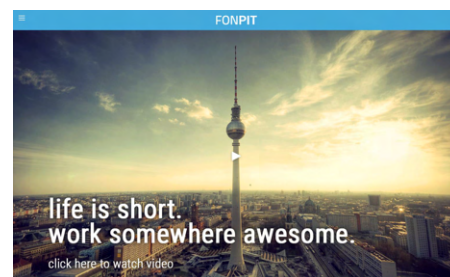### Scalable Infrastructure & Product Innovation

- Designed and built a **highly scalable content management system (CMS)** to accommodate a growing global user base.

- Transitioned the company's tech stack to **modern technologies**, including Java 11, Spring 5.1, and Spring Boot 2.1 by 2019.

- Led the **GDPR compliance initiative** in 2018, ensuring the entire IT infrastructure adhered to EU data protection regulations.

- Developed an **advertising infrastructure** based on a microservices architecture, leveraging **Spring Boot, Spring Cloud, Netflix OSS, and Kubernetes**.

Android App Ecosystem & Market Disruption

- Developed the **AndroidPIT App Center**, a **Google-independent app store** featuring multiple payment options, developer discounts, and exclusive promotions – pre-installed on devices from various manufacturers.

- **Pioneered the first web directory for Android apps in 2009** to enable web-based app discovery – long before Google Play Store had a web presence.

Technologies Used:

Java 11, Spring Boot, Spring Cloud, RxJava, JPA, Hibernate, MySQL, Elasticsearch, Filebeat, Kibana, Tomcat, HAProxy, Kubernetes, Docker, GlusterFS, Ansible

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Experiences

Founder, CTO, Lead Developer
eleisure AG
July 2004 – August 2009 (5 years and 2 months)

As the Founder and CTO of eleisure AG, a holding company specializing in online gaming, I led the development of multiple innovative projects at the intersection of gaming and technology.

Key Achievements:

- Developed **GameAbo**, a game rental platform with integrated logistics and payment systems.

- Created the browser-based MMOG **Feenix – The Age of Pirates**, awarded "Browser Game of the Year 2005."

- Built **Bailamo**, a browser-based 3D community platform.

Technologies Used:

Java, Spring Framework, Hibernate, Tomcat, MySQL

Team Lead for Windows Client Development
1&1 Internet AG
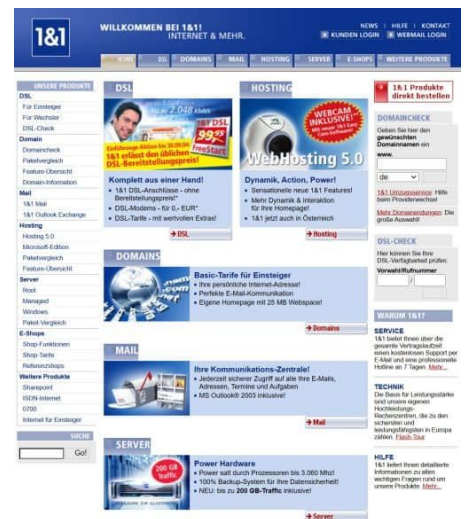October 2002 – June 2004 (1 years and 9 months)

At 1&1 Internet AG, a leading German Internet service provider that aquired W+R Software GmbH, I led the Windows client development team.

Key Achievements:

- Built and led a dedicated Windows development team.

- Drove the continued development of the GMX SMS Manager, refining its features for better user experience.

- Redesigned and re-implemented the SMS backbone for the United Internet Group, improving performance and reliability.

Technologies Used:

Java, JMS, JBoss (WildFly), Borland C++ Builder

Experiences

Founder & CTO

W+R Software GmbH (Acquired by 1&1 Internet AG)

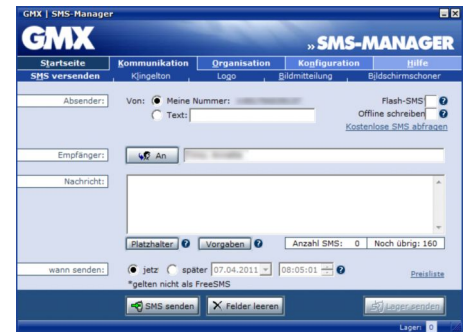September 2000 – October 2002 (2 years and 2 months)

Founded W+R Software GmbH, focusing on innovative online messaging services and leading its acquisition by 1&1 Internet AG.

Key Achievements:

- Developed Germany's first paid online messaging service, **GMX SMS Manager**.

- Led the full software development lifecycle, from concept to deployment.

- Managed the company's acquisition by **1&1 Internet AG** in 2002.

Technologies Used:

Java, JDO, Tomcat, Oracle DB, Borland C++ Builder

Lead Software Developer

jfax.de GmbH

September 1999 – August 2000 (1 year)

At jfax.de GmbH, a local branch of J2 Communications specializing in **unified messaging platforms**, I was responsible for building the German portal *jfax.de*. My responsibilities spanned software development, technical leadership, and ensuring a smooth transition of operations to the parent company.

Key Achievements:

- Led the development of core functionalities of the messaging platform while aligning with business and customer needs.

- Integrated enterprise messaging services.

- Managed the handover of operations to J2 Global in 2000, ensuring a seamless transition of business and technical processes.

Technologies Used:

Java, JSP, JRun, Oracle DB

Experiences

Founder & CTO
Cleverlearn, Inc.
February 1999 – August 1999 (7 months)

Led the technological vision for Cleverlearn, Inc., an innovative provider of online language learning solutions.

Key Achievements:

- Developed Clicktionary, an interactive Windows-based language learning tool using Visual C++.
- Designed scalable backend infrastructure using Java, JRun, and Oracle DB.
- Led cross-functional software development teams.

Technologies Used:

Java, JRun, Oracle DB, Visual C++

Intern & Graduate Student
Amazon.com, Inc.
October 1997 – February 1999 (1 year and 5 months)

During my tenure as a graduate student at amazon.com, I contributed to research and development in data-driven decision-making.

Key Achievements:

- Designed and developed a software that analyzed historical purchase behavior to generate personalized product recommendations.
- Conducted in-depth data analysis to identify purchasing patterns and trends.

Technologies Used:

Java, SQL, Oracle DB, Data Mining, Predictive Analytics

Education

Computer Science
Diplom-Informatiker (corresponds to a Master of Science)
Technische Universität Ilmenau
October 1994 – February 1999 (4 years and 5 months)

Graduated **with distinction** (grade: 1.2) in Computer Science. My studies focused on **practical computer science**, covering key areas such as **algorithms and data structures** and **database systems**.

My diploma thesis, titled "Conception, Comparison, and Evaluation of Different Approaches for the Data Management of an Adaptive Agent Based on Predictive Data Mining" was conducted in collaboration with amazon.com in Seattle.