
Technical Team Lead/Software Architect

Technical Architect with extensive experience in designing, implementing and integrating distributed software systems.

Proven ability to design solutions for data platforms, payment systems and Business Support Systems (BSS). Problem-solving skills are complemented by experience working in cross-functional teams using Agile Methodology.

Koweg Software Solutions	London, UK
Developer/Director (Contractor) - Securities Data Analytics	01/2014 - present

- Design and development of software solutions for analysing and visualising securities data.
- Ingestion and analysis of stock and market data for trading and portfolio optimisation.
- API integration solutions for various small businesses.

Technologies Python(Pandas, Numpy, Matplotlib, Scikit-learn, FastAPI), Kotlin, Spring Boot, RESTful HTTP, GraphQL, React, Azure, AWS(Lambda, S3, CDK, SAM), GitHub Actions, Terraform

Shell Information Technology International	London, UK
Solutions Architect (Contractor) - Metagenomics Data Management Platform	02/2023 - 01/2024

- Led collaboration with stakeholders in defining and shaping a Lakehouse solution for analysis of metagenomic datasets that directly supported decisions in carbon credit evaluation, decarbonisation and green energy initiatives.
- Conducted detailed requirement gathering to capture data producer and data consumer API specifications, including high-level components required for a Lakehouse architecture.
- Designed cloud-native architectures that leveraged Azure services for the data platform solution.
- Implemented rapid prototypes of end-to-end workflows and data pipelines in order to validate architecture and provide guidance to a data engineering delivery team.

Technologies Python, Azure Databricks, OpenAPI, RESTful HTTP, Azure, Terraform, MongoDB

NewDay	London, UK
Software Engineer (Contractor) - GraphQL PoC	07/2021 - 11/2021

- Designed and documented architecture solution required for transforming a RESTful BFF layer to a GraphQL integration layer.
- Implemented and evaluated performance tests on GraphQL applications that integrated downstream back-end services.

Technologies: Kotlin, Spring Boot, OpenAPI, GraphQL, Node.js, JMeter, BlazeMeter, GitHub Actions, Azure, Octopus Deploy

Mercedes-Benz Group AG	Stuttgart, Germany
Solutions Architect (Contractor) - Vehicle Order Management System Modernisation	02/2021 - 07/2021

- Collaborated with business architects and product owners in high-level designs for sales, pricing and vehicle order workflows.
- Created solution architectures and collaborated with delivery teams in evolving technical designs for modernising and migrating legacy systems.
- Provided guidance to delivery teams on best practices for building cloud-native applications.
- Implemented rapid prototypes to evaluate workflow engine solutions.

Technologies: Java, Spring Boot, Apache Camel, OpenAPI, GraphQL, Angular, Microservices, BPMN & DMN modelling, Archimate, AWS, Terraform, Jenkins

Innogy/E.ON	Dortmund, Germany
Solutions Architect (Contractor) - eMobility Platform Modernisation	06/2019 - 12/2019

- Created solutions that translated new stakeholder feature requirements into actionable architecture for an EV charging network platform.
- Collaborated with delivery teams to refine business use cases and develop technical designs that aligned with strategic platform objectives.

- Supported delivery teams in troubleshooting and optimising their microservice implementation in order to meet non-functional requirements.

Technologies: Java, Spring Boot, Apache Camel, SQL, RESTful HTTP, GraphQL, OpenAPI, Angular, UML, GitLab, Maven, JMeter, Gatling, MySQL, RabbitMQ, ActiveMQ, Glassfish, AppDynamics, CA API Gateway, Docker, AWS, Pivotal Cloud Foundry

HSBC Holdings	London, UK
Technical Team Lead (Contractor) - Front Office Regulatory Platform	06/2018 - 03/2019

- Collaborated with BAs in analysing various supervisory controls and reporting processes that needed to be streamlined and automated.
- Delivered API specifications and architecture designs for financial risk control services.
- Designed integration solutions and workflows for evidencing, approving, reporting or escalating various controls such as late trades, stop-loss limit breaches and personal account dealing breaches.
- Coached and led teams in agile software development practice -TDD, BDD and peer reviews.

Technologies: Java 8, Kotlin, Spring Boot, VertX, Activiti, SQL, RESTful HTTP, Swagger, Angular, OAuth 2, Oracle 11g, UML, Git, Maven, REST Assured, Cucumber, JMeter, WireMock, Docker, Kubernetes, Jenkins

Deutsche Bank	Frankfurt, Germany
Senior API Engineer (Contractor) - Securities Order Management System Integration	06/2017 - 05/2018

- Designed and documented business partner APIs that provided integration to an internal Order Management System for the execution of equity orders.
- Collaborated with SMEs in analysing and integrating MiFID II directives regarding best order execution rules and cost transparency for securities transactions.
- Implemented mock services to test and validate trade execution interface models.

Technologies: Java 8, Spring Boot, Angular, SQL, RESTful HTTP, Swagger, Cucumber, OpenID Connect, OAuth 2, Oracle 11g, UML, Git, Maven, Tomcat, REST Assured, SoapUI, WireMock

HSBC Holdings	London, UK
Technical Team Lead(Contractor) - Digital Transformation Programme	08/2016 - 04/2017

- Defined and documented API specification for various internal corporate banking services.
- Led PoCs for evaluating ForgeRock OpenAM & OpenIDM as access control and identity management solutions.
- Collaborated with SMEs in analysing and defining functional requirements for a Letter Of Credit component in a monolithic trade services platform.
- Designed and implemented various user onboarding workflows across distributed systems..

Technologies: Java, Spring Boot, SQL, RESTful HTTP, Oracle 11g, MongoDB, RAML, Jenkins, Git, Maven, IBM MQ, Pivotal Cloud Foundry(PCF), OpenAM, OpenIDM, OpenDJ, MuleSoft Runtime Engine, React JS

Barclays Bank / Accenture Technology Services	Knutsford, UK
Senior Agile Developer(Contractor) - Cheque Image Clearing Hub	10/2015 - 06/2016

- Implemented business rules and integration solutions for an electronic cheque image processing system.
- Defined build pipelines and created scripts for deployments to the OpenShift platform.

Technologies: Java, Spring, JDBC, Hibernate, RESTful HTTP & SOAP Web Services, XML/XSD, Camel, Oracle 11g, UML, Jenkins, Git, Maven, Gradle, ActiveMQ, JBoss EAP, OpenShift

Erste Group Bank	Vienna, Austria
Senior Agile Developer(Contractor) - Digital Banking Platform Modernisation	03/2015 - 09/2015

- Designed and implemented services for migrating a monolithic digital banking platform to a microservice architecture.
- Collaborated with SMEs in defining API specifications for card, accounts and user services.
- Collaborated with Product Owners and stakeholders in refining and prioritising product backlogs.
- Facilitated collaboration in a Scrum of Scrums across business units in order to enable delivery teams meet sprint goals.

Technologies: Java, JavaScript, Spring, JDBC, JPA, SQL, RESTful HTTP & SOAP, Cucumber, JSON, XML/XSD, AngularJS, Camel, Oracle 12c, UML, Git, Maven, ActiveMQ, Tomcat

Monitise Group	London, UK
Senior Software Developer - Mobile Banking and Payment Services	07/2012 - 11/2013

- Implemented various payment solutions for the VISA payment processing platform.
- Designed and implemented web interface for managing encryption keys generated by a HSM infrastructure.
- Collaborated with cross-functional teams in the technical planning and design of a global reference platform for a telecommunications service provider.

Technologies: Java, Spring, JDBC, JPA, PLSQL/SQL, RESTful HTTP, SOAP, JBehave, Selenium, JMeter, JSON, XML/XSD, XSL/XSLT, XPath, Camel, Oracle 11g, UML, Git, Maven, Ant, Fuse ESB, Glassfish

Net mobile AG/DOCOMO Deutschland	Düsseldorf, Germany
Project Lead, Software Developer - Mobile Payments	06/2010 - 07/2012

- Collaborated with external stakeholders in defining functional and technical requirements for various payment service and mobile carrier billing integration initiatives.
- Implemented and tested Visa 3-D Secure protocol for our payment gateway.
- Led adhoc teams in delivering various optimisation solutions for data ingestion jobs and application workflow orchestration.
- Designed and implemented various tools for transaction insights and alerts on transaction anomalies.

Technologies: Java, Perl, Python, JDBC, JPA, SQL, JSP, Servlets, JSF, Web Services (REST, SOAP/WSDL), XML/XSD, XPath, ActiveMQ, PostgreSQL, Fuse ESB, UML, SVN, Maven, Ant, JMeter, Archi

sms eSolutions GmbH	Düren, Germany
Project Lead, Software Developer - Phone Number Allocation & Porting System	03/2009 - 03/2010

- Collaborated with external stakeholders in defining functional requirements for integrating a phone number allocation and management system.
- Led a team of 4 in implementing the German Federal Network Agency specification for phone number porting and management.
- Provided 3rd-level support to major telecom providers at various deployment phases, including QA testing and release migration.

Technologies: Java, EJB, Spring, Shell Scripting, JPA, Hibernate, SQL, Web Services (REST, SOAP/WSDL), XML/XSD, Tomcat, Glassfish v3, ActiveMQ, Oracle 10g, UML, Subversion, CVS, Hudson, Maven, Ant, Eclipse, Umbrello, XML Spy, SQL Developer

Logica GmbH	Düsseldorf, Germany
IT Consultant	05/2008 - 02/2009

- Collaborated with clients in defining functional and technical requirements for an information management system at an electric utility company.
- Consulted with public service clients in optimising and implementing new features for a legacy information management system at a government data center.
- Implemented various design solutions.

Technologies: Java, EJB, Spring, Shell Scripting, PLSQL, JPA, Hibernate, SQL, JSF, JSP, Servlets, XML, XHTML, Tomcat, JBOSS, Oracle 10g, UML, SVN, CVS, Hudson, Maven, Ant, Eclipse, MagicDraw

Volkswagen AG	Wolfsburg, Germany
Intern (R&D) - Offboard Diagnostic System	10/2006 - 04/2007

- Designed and developed concept for a fault diagnostic system. Modelled electrical component networks and decision making strategies using extended Bayesian networks.
- Implemented a prototype inference and decision engine using Java and the Hugin API.

Technologies used: Java, Spring, JSP, XML/XSD, XSLT, Tomcat, UML, Together, Hugin Decision Engine

University of Duisburg-Essen	Duisburg, Germany
Programmer & System Administrator	10/2002 - 06/2006

10/2002 – 06/2006 Programmer & System Administrator, University of Duisburg-Essen, Germany

- Developed an information management system that motivated funding for a major portal project.
- Collaborated with stakeholders on an architecture planning team that was responsible for a university-wide portal project. Evaluated various portal software solutions such as Liferay and uPortal.
- Instructed PHP/MySQL programming courses and provided mentorship to participants in team projects.

Technologies used: PHP, Java, Spring, Shell Scripting, JSP, Servlets, XML, XSL/XSLT, XHTML, CSS, Tomcat, JBOSS, Apache HTTP Server, UML, Subversion, Ant, Eclipse, Zend IDE

Education

University of Duisburg-Essen, Duisburg, Germany (02/2002 - 05/2007)

Diplom Ingenieur (M.Sc.) Information and Communications Engineering

University of Duisburg-Essen, Duisburg, Germany (10/1999 - 09/2004)

Vordiplom Information and Communications Engineering

Languages

English and German (fluent)

Technical Skills

Languages:	Java, Kotlin, Python, Perl, JavaScript, C/C++, Shell Scripting
Modelling:	UML, Archimate
Cloud:	AWS, Azure
Containerisation:	Docker, Kubernetes
Databases:	Oracle 11g, PostgreSQL, MySQL, MongoDB
Middleware:	ActiveMQ, RabbitMQ, Kafka
Web Technology:	HTML, CSS, XML/XSD, XSL/XSLT, JSON, REST

Training:

TOGAF 9, Certified ScrumMaster, PMP Training, Cloudera Data Science Training