

Francesco Costa

Born in Siracusa, Italy, on May 2nd 1962

Home address: Via Volturmo 80-PP3, 20861 Brugherio (*Milan, Italy* metro area)

Phone: +393351246931, e-mail: mbox171@gmail.com

Summary of Qualifications

- Senior architect, software engineer, developer.
- Broad set of skills on object-oriented development, Java, Java Enterprise and Spring.
- Outstanding track record of JVM and Java servers troubleshooting and performance tuning.
- Wide experience in designing, and deploying scalable and highly available enterprise architectures.
- Cloud architectures design, provisioning, configuration and tuning.
- Cloud-native technology enthusiast: container orchestration, service mesh, observability, chaos engineering.
- Good understanding of the CNCF ecosystem: e.g. k8s, Istio, Prometheus, Jaeger, LitmusChaos.
- Solid background on Artificial Intelligence, Machine Learning, Deep Learning.
- Exposure to mobile development (Android Studio, Angular, Ionic, React, Firebase) and Node.js backends
- Significant issue-based consulting engagement record.
- Project management experience.
- Methodology development and worldwide rollout programs lead.
- Deep understanding and ability to manage the software lifecycle process.
- Effective communication at all levels (italian/english). Familiarity with an international working environment.
- Ability to gain customer trust, excellent cooperation with both technical and management counterparts.
- Proven record as excellent teamplayer.
- Intuition, problem-solving capabilities, high energy, flexibility.
- *Learnaholic* appetite for acquiring new skills, self-motivated, strong drive for professional growth.

Technologies

Cloud

Infrastructure-as-code, Networking
Compute, Containers, Serverless
AWS Lambda, Load balancing
API GW, Streaming
Managed observability

Microservices

Rest, Async Messaging, Reactive APIs
Container orchestration, Service mesh
Monitoring, Distributed tracing

Java Backend

JVM tuning, Java EE
Spring Boot, Spring Cloud

Service-Oriented Architectures

Web Services
Enterprise Service Bus

Object-oriented development

OO Design, OO Frameworks
Design Patterns

Programming Languages

Java (main), Smalltalk, Python
JavaScript, C, COBOL, PL1
Prolog, Lisp, Fortran

A.I., Machine Learning

Regression, Classification, Clustering
FC Newtworks, CNN, RNN
Attention, Transformers

Database Design and DMLs

E-R, Relational (SQL)
Hierarchical, Codasyl

Products

Oracle Cloud Infrastructure
Google Cloud Platform
Terraform, terraform-oci-oke
Kubernetes, Cluster autoscaler
Istio, Flagger
Prometheus, Grafana
Jageger, Kialy
Kubeflow
Oracle WebLogic Server
Oracle WebLogic Portal
Oracle Service Bus
Oracle Business Process Management
Eclipse, JDeveloper, IntelliJ IDEA
Visual Studio Code
Java Mission Control,
VisualVM, MAT, GcEasy
Mercury Load Runner
Apache Spark (PySpark DataFrame API)
IBM WebSphere Application Server
IBM Websphere Studio
IBM WebSphere Business Components
IBM DB2
IMS, DL/I
IONA OrbixWeb
TIRS, ESE, IBM Neural Networks Utility
GNU Octave (MathLab)
TensorFlow, Keras
Jupyter Notebooks/Labs
Kaggle, Google Colab

Education

- Maturità Classica (High School degree), Liceo B. Zucchi – Monza (MI), grade 52/60
- Laurea in Ingegneria Elettronica – Indirizzo Informatico, at Politecnico di Milano, grade 90/100

Certifications

- IBM VisualAge Smalltalk Developer, 1996 (IBM)
- Java Programmer, 1999 (Sun Microsystems)
- BEA WebLogic Server Administrator, 2003 (BEA Systems)
- BEA WebLogic Portal Developer, 2005 (BEA Systems)
- Machine Learning specialization by Stanford University (Prof. Andrew Ng), 2017 (Coursera)
- Deep Learning specialization by deeplearning.ai (Prof. Andrew Ng), 2017 (Coursera)
- Google Cloud Certified - Professional Cloud Architect, 2018 (Google)
- Google Cloud Certified - Professional Data Engineer, 2018 (Google)
- Oracle Cloud Platform Enterprise Mobile 2018 Certified Associate Developer
- Oracle Cloud Platform Digital Assistant 2019 Certified Associate
- Oracle Cloud Infrastructure 2019 Certified Architect Professional
- Oracle Cloud Infrastructure 2019 Certified Architect Associate
- Oracle Cloud Infrastructure Foundations 2020 Certified Associate
- Oracle Cloud Infrastructure Developer 2020 Certified Associate
- Oracle Cloud Infrastructure DevOps Certified Professional (2022)

Current Position

Oracle LIFT Cloud Services, Cloud-native Implementation Technical Lead (2021 –)

Implementation leader, transitioning Oracle customers containerized applications and microservice-based systems to Oracle Cloud Infrastructure cloud-native environments.

Provision, configure, deploy, test container orchestration systems based on kubernetes, Ingress controllers, cluster autoscaler, service mesh (Istio), OCI Kubernetes Engine, OCI Load Balancer, OCI Container Registry, OCI DevOps Service (CI/CD), OCI Functions, OCI API Gateway.

Design of LIFT Cloud-native Smart Services offering. Development of pre-packaged LIFT OCI Solution Packs in the cloud-native domain.

Awards: FY22 Q2 - EMEA Tech Cloud Engineering, Best Consumption Changer

FY22 Q4 - TechStars Constellation Award, FY22 Top Performer, EMEA Technology

- Scanovate (Israel): Design of new Oracle Cloud Architecture around Oracle Kubernetes Engine (OKE).
- Hermes Parcelnet/Evri (Uk): end-to-end provisioning, configuration, deploy and test of a microservice solution on Oracle Cloud for chatbot backends. The environment comprised several OCI services and opensource products: OKE, NGINX Ingress Controller, Pod Autoscaler, Cluster Autoscaler, OCI Load Balancer, OCI Digital Assistant.
- GSE (Italy): OKE-based cloud-native microservice architecture design and deploy.
- Neom (Saudi Arabia): Setup, configuration and test of a MLOps cloud environment: OKE, OCI Object Storage, Kubeflow, Jupyter, Python. Testing of the environment and customer support on distributed training and serving of Tensorflow models.
- Ali Hashi (Qatar): Design and provisioning of a Java middleware architecture on Oracle Cloud: Oracle WebLogic Server cluster, Coherence. Environment high availability set-up and testing.
- Chubb (Uk): Design, provisioning, configuration and test of a high-available high-volumes observability data feed from Oracle Cloud Infrastructure to Azure (Sentinel).
Logs, Events, Metrics, Alarms dispatch using OCI Notifications, OCI Streaming and a serverless custom integration layer based on Java and OCI Functions.

Professional Experience

Oracle, Consulting Technical Manager (2009 – 2020)

Architecture design, project support, critical situations handling, production systems troubleshooting and issue management; technical account management, qualification of software license sale opportunities, support to pre-sale activities, development of proof-of-concepts, proposals, answers to RFPs/RFQs.

Intesa San Paolo

- Lead architect on Oracle Platform-as-a-Service adoption project (2017): Developer Cloud Service, Java Cloud Service, Mobile Cloud Service, Intelligent Bots (chatbots). Setup of a Java Enterprise devops environment, development of a mobile app, development of a chatbot.
- New Internet Banking (2016): infrastructure design, architecture review, performance testing and tuning (infrastructure and application).
- Authoring of J2EE Design Best Practices and Coding Guidelines documents.
- Lead role in Engineered Systems adoption. Exalogic infrastructure design and support to deployment, performance evaluation and tuning.
- Architecture/design review and performance tuning performed of many mission-critical applications, (Pratica di Fido, ATM, Branch Intranet Portal, Trading Evoluto, etc.).
- Support in design of the deployment architecture for San Paolo distributed systems (typically based on web servers, J2EE Servers, CORBA, Oracle DB) optimizing load balancing capabilities, scalability and fault tolerance.
- Internet Banking project (2010-2014): architecture design, application review, support to functional and performance tests, troubleshooting, optimization and tuning. Significant redesign of application components and production environment architecture, which enabled the system to handle the user load and meet the expected performance and service level requirements.
- Architect on the Intesa-San Paolo integration project (Project “Everest”), working on new production environments design, capacity planning and applications migration.

Unicredit

- Support to Engineered Systems performance evaluation and tuning. Exalogic/WebLogic Server infrastructure design and deployment.

Deutsche Bank

- Middleware (RedHat JBoss) performance review and capacity assessment.

Autostrade

- Architecture review, performance testing and tuning on EcoMuv project.
- Support to Engineered Systems evaluation and setup. Exalogic/WebLogic Server infrastructure design and deployment.
- Support to application development team in meeting challenging performance requirements.

BEA Systems, Principal Consultant (2005 - 2008)

Delivery of consulting engagements on BEA products and related technologies, at various stages of the project lifecycle: architecture design, implementation, operation. Recovery of troubled projects.

Vodafone

- Architect/designer on PICASSO project, for the development of the new global worldwide Vodafone customer care portals.
- Project review and performance tuning on “190.it” customer care portal, based on BEA WebLogic Server, Broadvion and Fortè, prescribing architecture modifications, operation environment optimization, and application design changes. The recommendations allowed the portal to handle the massive user load, dramatically improving performance and stability.
- Java 2 Enterprise Edition and BEA WebLogic Server expertise provided on several projects (Vodafone One, SMS Messaging Server, etc.), both to development and IT operations teams.
- Responsible for the performance testing and tuning project for the OmniPay solution.

- Lead developer of the S.O.A. CRM proof of concept, which set the architectural foundation for the “CRM Renewal” project, based on the adoption of BPM and ESB. The contribution involved the design of the proposed architecture, the implementation of a working prototype and extensive performance testing within a real production-like environment.

Telecom Italia

- Support to IT operations department, troubleshooting and performance tuning of the provisioning applications (UNICA-x).
- Solution design, project startup and developer mentoring on the Order Management project, based on Java, WebLogic Server and BEA BPM tool (AquaLogic BPM).

Poste Italiane

- Technical project manager for the intranet portal (PostePerNoi), designing, coding and leading a team of up to 20 people; keeping relationships with customers and third-party suppliers; effort estimation, resource allocation, planning and day-by tracking of project progress.

Gucci

- Responsible for technical proposal and development of a proof of concept for the new SOA corporate platform, based on BEA Systems products: application server, BPM, ESB and Service Registry.

Fastweb

- Development of a proof of concept for the new Corporate Account portal, based on BEA Systems application server, BPM and ESB.

Albacom

- Produced architecture and design of WebC@re, a corporate customer self-care solution, based on BEA WebLogic Portal.

BEA Systems, Senior Consultant (2001 - 2004)

Providing technical expertise to customers on BEA Systems products and related technologies, with main focus on Java 2 Enterprise Edition, and Enterprise Portals.

Support of customers' management in relevant business and technical efforts; leadership of implementation and deployment; mentoring of development, deployment, and operations teams (including BEA, BEA-partner resources and customer resources).

Planning and execution of end-2-end performance tests for enterprise solutions; bottlenecks identification; architecture, design and coding reviews for performance optimization; capacity planning.

H3G (3)

- One-year+ full time engagement, responsible for all the pre-launch performance testing activities for the mobile portal and applications (such as Service Delivery Platform, StadioLive, Self Care, Content Management).
- Mobile applications (a.k.a. Podotti) design review and pre-release certification, checking compliance to specifications and design/coding guidelines.
- Support to the IT Operations department, monitoring and troubleshooting the mobile portal infrastructure during launch period.

Banca Sella

- Several weeks engagement for architecture review and refactoring of the multichannel banking system, which enabled the bank to go live with a 100%-Java 2 Enterprise Edition information system (including corebanking applications).
- Performance testing leader, provided architecture optimization and design guidelines.

Enel

- Architecture and design review for the intranet portal (inEnel): provided new portal architecture and application design changes which enabled the system to go live.
- Architect and performance engineer on Telegestione, a very complex and mission-critical project for complete automation and remote operation of customer metering devices.

Infocamere

- Architecture, design, coding, developer mentoring, performance test, performance optimization for the Italian government portal for enterprises (impresa.gov.it).

Hewlett-Packard

- Architecture review and performance optimization on "next", a multichannel banking solution.
- Solution design support, performance benchmarking, configuration and application tuning on Cassa di Risparmio di Firenze branch teller bid.

IBM e-business Solutions EMEA, Architect (1999 - 2000)

Technical Leader in several engagements in the e-CRM area, mostly with customers in the Finance Sector, in different EMEA countries.

- Lead Architect and Technical Project Manager in a UK internet banking solution project, technically supporting the proposal phase, and then leading the successful delivery, in five months, of an online banking website for cahoot.co.uk, part of the Abbey National group. The solution was based on Java, WebSphere Application Server, WebSphere Business Components.
The role involved providing technical leadership to the team, mentoring developers, tracking project progress, keeping contacts with IBM Toronto lab, developing effective relationships with the customer and third-party suppliers, and being ultimately responsible for the delivery on time and budget (as it was) of the solution.
- Pre-sale consultant in many customer engagements involving e-business architectures, Java, XML, Java 2 Enterprise, WebSphere Application Server and WebSphere Business Components.
 - ZKB (Switzerland) – Answer to RFP, overall design of a multichannel banking architecture.
 - ABSA (South Africa) – Design of the new internet banking platform which has been adopted for all direct channels.
 - MAAF Insurance (France) – Architecture design and development of a proof of concept for a CRM solution, integrating Siebel and WebSphere Business Components.
 - Credit Agricole (France) – Architecture design and development of a prototype for the new enterprise-wide multichannel platform based on Java 2 Enterprise Edition.
 - Winterthur – Belgium – Mentoring and architecture design in an engagement (led by Accenture) for the new global IT platform based on Java 2 Enterprise Edition.
- Technical support to key EMEA partnership between IBM and other technology providers, acting as IBM reference and teaming-up effectively with partner technical leaders (NSE, Germany – Siebel Europe, UK – Intertech, Turkey – Lagan, UK).
- Member of the worldwide IBM Global Service SI-Method development team. Key contributor to the development of the IBM G.S. SI-Method Asset-Based Development track.

IBM Consulting Group – Object Technology Practice, Consultant (1996 - 1998)

Key role in setting up a new consulting practice on object-oriented technology, component architectures, software reuse and asset-based development.

Technical leader of knowledge transfer on VisualBanker, a software framework for CRM banking solutions made by Footprint Software, acquired by IBM. Three-month residency at Footprint (Toronto, Canada) and development of a specific engagement model and project methodology for VisualBanker, adopted worldwide.

Support to VisualBanker pre-sale activities and proposals for several EMEA financial institutions such as Banco di Napoli, Banca di Roma, Poste Italiane, Banca Popolare di Milano, Bank Hapoalim.

- Presale and project startup support on “CARIPLO SIM” (Sistema Informativo di Marketing) project, for the new branch CRM system of one of the largest Italian banks developed in Smalltalk using VisualBanker.
- Technical Project Manager on the “Credito Agrario Bresciano – Obiettivo Cliente” project, a branch CRM solution based on VisualBanker, for a regional bank in northern Italy, with full responsibility to design the system, manage the resources and deliver the solution.
The project duration was approximately one year and the team size between 5 and 10; the solution was delivered on time and within budget.
- Architect and development leader on a claim processing solution for INA, a large Italian insurance company. The contribution started as a rescue mission for a project that was in a very critical situation.

- Architect and lead developer in a phone banking application for Banca Generali, one of the first Italian direct banks.

Delivery of consulting reports on Object Transition, for customers such as Riello (manufacturing) and RAI (media), interested in moving toward object-technology, 3-tier architectures, component-based development, Java 2 Enterprise Edition and application servers, such as WebLogic version 0.9-Tengah.

Teacher with IBM Object Technology University, an advanced training organization for IBM consultants and customers, on a program called “OTU School Two”. It was an elite three-week course for experienced practitioners on object-oriented analysis and design, methodologies, design patterns (GoF and others), framework design, software reuse and management of the object-oriented development projects.

- Key contribution to course development, as first assistant to Professor Mahesh Dodani.
- Delivery of several course editions in La Hulpe (Belgium) and Rio de Janeiro (Brazil).

Significant experiences of this period with object-oriented domain modeling and requirements specification where summarized in a paper presented at IBM International Conference on Object Technology, San Francisco, June 1996.

IBM - IT Specialist, Artificial Intelligence (1991 - 1995)

Member of the “advanced technologies” team, delivering projects concerning Knowledge-Based Systems (Expert Systems), Logic Programming, Neural Networks. The mission was to apply innovative software paradigms to solve real business problems.

- Leader of projects to apply Neural Networks and Machine Learning to manufacturing processes, using IBM Neural Network Utility: supervised learning for demand prediction, blend of supervised and unsupervised learning for electronic modules test support.
- Development of a knowledge-based application for investment analysis and ROI calculation. The application was developed using IBM Prolog Workbench, an object-oriented environment for logic programming. The solution was adopted by the IBM manufacturing organization to support investment decisions. A research paper describing the innovative results of the project was accepted for presentation at IEEE/AAAI International Conference on Expert Systems, session on E.S. Applications, San Diego, October 1992.
- Italian member of the “CommonKads” project team, an Artificial Intelligence Esprit initiative founded by the European Community, on knowledge acquisition and ontologies specification.

IBM Manufacturing Information Systems, System Engineer (1988 - 1990)

System Engineer at internal Manufacturing Information Systems of IBM Italy. The position concerned the analysis, development and maintenance of application software for mainframe transaction-processing environment, leading all the activities on part of the logistics applications.

Ing. C. Olivetti & C., Intern (1987 - 1988)

One-year internship in the department in charge of defining network protocol architectures and implementing communication software for Olivetti computers, working at the University term paper “A Simulator for Specifications written in LOTOS, a Language for Formal Description of Communication Protocols”.

Interest areas were protocol specification and implementation and testing of networking software from a Software Engineering perspective. The result was a methodology to execute software conformance testing, through the generation and analysis of execution traces.