

# Rahul Kumar Singh

Kubernetes | OpenShift | OVN CNI | DevSecOps | JAVA-J2EE | Spring  
| Security | ServiceMesh | Cloud Native | Microservices

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- 11+ Years of rich experience with diversified Techno Engineering portfolio. Long track of Architecting, Designing, Development & Solutioning of wide range of Products & Services including Security solutions.
- Begin career with Enterprise Applications design & development in Java/J2EE domain, system design & development in Storage Domain Product, Public/Private Cloud Platforms (IaaS, PaaS) expertise, Data engineering for IoT Platforms, HCI Product Design Development with OpenStack. Cloud Native expertise on K8S & OpenShift. SME of Container Networks & CNIs for Telco & IT workloads.

## Work-Ex Summery.

### SEPTEMBER 2012 – PRESENT

Technical Specialist, NEC Corporation India ([in.nec.com](https://in.nec.com))

#### Key Highlights:

- Architect on the transformation of existing monolithic Applications/workloads running over legacy infrastructure to Microservices using **Spring Boot** over the various Container platform (**K8S, OCP**) on public & private cloud. Creating Proposals, participating in RFPs w.r.t. **Modernization & Migration** of existing workloads to target cloud IaaS over K8S.
- Wide range of experience of working for **Web & Enterprise Applications Design & Development** in **JAVA/J2EE & Spring Framework (Boot, IOC, AOP, MVC, Data)**.
- Expertise in the **Enterprise Architecting** using the **SOA, OOAD, BPM**. Implemented message-oriented middleware using **ESB technologies**.
- **Container network expert with thorough deep knowledge of OVN & SDN CNIs**, build team competency to work as SMEs for evaluation & troubleshooting of network solutions and providing troubleshooting around Major CNIs such as **OVN, OVS, MULTUS, OSSM** to Telco & 5G domain.
- Playing key role as a Cloud Architect in Design, Development, Evaluation of OSS based cloud native solutions on Kubernetes & RH OpenShift PaaS over public & private cloud IaaS. Helping pre-sales to pitching the Cloud native solutions in Market.
- SME to contribute on NEC in-house **DevOps** platform/frameworks design, development & Production.

### MAY 2011 – SEPTEMBER 2012

Software Engineer, CORBUS ([corbus.com](https://corbus.com))

- Enterprise Applications Design, Development, Deployment, Maintenance | JAVA-J2EE Stack [ Struts 2.x, JSP, Servlet, Spring, Hibernate, SQL, ORACLE DB].
- Migration of existing web application to Java based web applications.

## Technology Stack1 [DevOps & Cloud Native]

<b>PaaS   IaaS</b>	Kubernetes   RedHat OpenShift   vmware-tanzu   AWS   RHOSP   VMware vSphere
<b>Container Network</b>	OpenShift CNO   OVN CNI [EgressIP, Egress Router CNI, Multicast, Network flows (NetFlow, sFlow), ACL (Network Policy, Egress Firewall)]   SDN CNI   Multus   OpenvSwitch   SRIOV
<b>Cloud Native (Day2)</b>	Backup DR(Velero)   Logging & Monitoring (Elasticsearch, Loki, Fluentd, Grafana Prometheus)   Load balancing (MetalLB, HAProxy)
<b>DevOps (Day1)</b>	Jenkins   Maven   Ant   Docker   Ansible   Linux Shell Script   GitLab   Bitbucket   CKA
<b>Service Mesh</b>	Istio   OpenShift ServiceMesh   Kiali   Jager
<b>Storage</b>	NEC HYDRastor   HCI   NFS   CIFS   Object Storage (AWS S3, MinIO   Ceph Rados)   Ceph   AWS EBS, EFS   CSI (NetApp Trident)
<b>Security</b>	PKI, SSL   TLS encryption, OAuth, [CSRF   Reflected cross-site scripting (or XSS)], Vulnerability Fix

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## Technology Stack2 [Design & Development]

<b>Programming Language</b>	Java (JDK8.x)   Python3.x   Go   Shell   Perl
<b>Application Frameworks</b>	Spring Boot, Spring [IOC, AOP, MVC], ORM, Struts2.x, Servlet JSP, Persistent Framework [Hibernate, JPA, iBATIS]   Python Web Framework [Django Flask]
<b>Design Patterns</b>	OOD Pattern (Creational, Behavioral & Structural), SOA, ESB, BPM, HLD, LLD Sidecar, Operator, Microservice
<b>DBMS</b>	RDBMS [Postgres, MySQL, Oracle 10g], RRD, NoSQL [Mongo, Redis], DB Vacuuming
<b>Web &amp; App Servers</b>	Nginx, WebLogic, JBoss, Tomcat, Httpd, WebSphere
<b>Middleware</b>	ESB (KAFKA, WMB, WMQ), SOA, BPM

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## Assignments Summary

Project Type	Name & Subsystems	Duration	End Users
<b>Containers Design Development &amp; Evaluation</b>	<b>OpenShift Container Platform</b> <ul style="list-style-type: none"><li>- Redhat OpenShift Network (CNO &amp; OVN CNI)</li><li>- Redhat OpenShift Service Mesh (OSSM)</li><li>- Login &amp; Monitoring in OpenShift (Loki &amp; CLO)</li><li>- Backup &amp; DR Solution, Container Storage Interface</li><li>- Network Load Balancer (MetalLB)</li></ul> <b>MAF</b> <ul style="list-style-type: none"><li>- CI/CD Pipeline System over OpenShift</li><li>- Integration of keycloak</li><li>- Billing System Similar to Cloud watch.</li></ul>	<b>2 Year</b>	NEC Japan
<b>Modernization of Monolithic Applications</b>	<b>Daiwa Securities</b>	<b>Till Date</b>	NEC Japan
<b>Product Design &amp; Development</b>	<b>NEC HYDRAsTOR</b> <ul style="list-style-type: none"><li>- ClusterPro, NTP, NFS, CIFS, System Monitoring &amp; Control System</li><li>- License, User Account, Capacity, Network, Node Info Collector.</li><li>- Management Dashboard</li></ul>	<b>7 Years</b>	USA (GP, VISA, USPTO), JAPAN (EX, TX, SA (FNB, Afrihost, Discovery Bank)
<b>Hyper Converged Infrastructure Design &amp; Development</b>	<b>HCIX</b> <ul style="list-style-type: none"><li>- OpenStack Horizon customization.</li><li>- Hardware resource provision, Instance provision.</li><li>- Storage provision using CEPH.</li></ul>	<b>4 Months</b>	NEC Japan
<b>IOT Data Platform Design</b>	<b>DMIDC Visualization</b> <ul style="list-style-type: none"><li>- Hot Path (Real Time) &amp; Cold Path data aggregation using KAFKA broker</li><li>- Design middleware using Java plugin architecture</li><li>- Historical data storage in HDFS</li><li>- Elastic Stack implementation for data visualization</li></ul>	<b>6 Months</b>	NEC Japan
<b>Industrial IOT Platform Middleware Design</b>	<b>Predix System</b> <ul style="list-style-type: none"><li>- Authentication System</li><li>- Data Analysis system</li></ul>	<b>8 Months</b>	NEC Japan
<b>Enterprise Application Design Development</b>	<b>IAMS-CorbuS</b> <ul style="list-style-type: none"><li>- Design End-to-End Enterprise Application</li><li>- Breed &amp; breed Product Selector</li><li>- Breeds Articles of P&amp;G</li></ul>	<b>1 year</b>	P&G

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### Educational Qualification

Qualification	Institute
M.Tech (Software Systems)	BITS Pilani
Bachelor of Computer Application (BCA)	IGNOU
10+2	U.P. Board

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### Certifications

Certification	Issuing Authority
Certified Kubernetes Administrator (CKA)	Linux Foundation

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### Personal Information

<b>Father's Name</b>	Kamta Singh
<b>Date of Birth</b>	1 <sup>st</sup> January 1988
<b>Marital Status</b>	Married
<b>Nationality</b>	Indian
<b>Language Known</b>	English, Hindi

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### Declaration

I hereby declare that the above written Particular are correct to the best of my knowledge.

Date:

Place: Ghaziabad, India

(Rahul Kumar Singh)