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# Shan Narayanan

## SUMMARY

- 15+ years experience in design, development and implementation of highly performant, scalable full-stack software applications and products using languages including Scala, Java/J2EE, Python and Javascript.
- 10+ years experience in architecture, design, administration, management and infrastructure automation in the cloud(AWS, Azure and Oracle Cloud Infrastructure(OCI)) and On-Prem based virtualization platforms (Nutanix).
- Extensive experience in architecting, building and managing Kubernetes platforms from scratch. Multiple successful implementations in Azure, OCI, AWS as well as Nutanix(On-Prem).
- Extensive experience in building high-availability platforms for analytics and real-time transacting and decisioning, including expertise in performance tuning at the application and database level.
- Provided hands-on guidance and coaching in cloud platforms and modern platform engineering, accelerating onboarding and skill development across the team.
- Architected and implemented custom data storage architectures to support real-time SLAs, all within PCI-DSS and SAS 70 compliant environments.

## PROJECT DETAILS

### **Midamerican Energy / Intelligent Energy Solutions      Apr 2015 to Till Date**

As part of the Cloud Services team,

- Architected, Designed and provisioned Nutanix Cloud Infrastructure and Nutanix Kubernetes Platform(15+ k8s clusters) across two on-prem data centers.
- Architected, Designed and provisioned multi-region cloud Infrastructure via Automation in the cloud(Azure and OCI), from scratch. Extensive use of Python, Terraform, Ansible, Packer, Azure and OCI SDK to provision resources via Azure Devops pipelines in Azure and OCI.
- Architected, Designed, Provisioned and Administered OKE(Oracle Kubernetes Engine) on OCI, Openshift on OCI.
- Participated in Architecture and Design Review sessions, Identified infrastructure, networking and security gaps, provided constructive feedback and proposed and implemented alternative solutions where necessary.
- Cloud Engineering efforts: Work with the broader team within BHE and engineer cloud products in Azure and OCI to work with enterprise security constraints/guidance.
- Miscellaneous:
  - Pacificorp Jointuse – Worked on upgrade, security and maintenance of AWS infrastructure.
  - Automation scripts for import of custom policies and locations for conditional access during B2C Implementation.
  - Wrote scripts for alerting on failures for B2C, data extracts for loading into internal systems for tracking and monitoring etc.
  - Finops activities to accurately allocate cloud costs for projects and affiliates with BHE

As part of the EMS product line within MES,

- Architected and rebuilt EMS product line with integration to Ecobee Smart Devices.
- Built big data analytics processing platform from scratch using Spark Framework(streaming and batch), Kafka, Cassandra and MongoDB.
- Infrastructure automation, provisioning and management for the Residential and Commercial platforms. DevOps Activities including but not limited to AWS, Chef, Jenkins, Docker, Cassandra, Kafka, Zookeeper, Mongo, Spark, Nagios.
- Architected and built platform for Commercial Clients(Jarvis). Implemented backend(using Flask), Analytics(using Pandas, Numpy), Niagara Integration. All the components are dockerized and running in production with sub-second responses.
- Using Scala and Play framework,
  - Design & Development of the Aggregated Metric, Metric, Hierarchy, MetricReport and Weather web services.
  - Enhanced IROM platform to real-time send email(MailChimp) and SMS(i2sms) and several partner integration(DemandResponse events with SMUD, Salesforce, LendLease).

### **Kobie Marketing, St. Petersburg, FL**

**Mar 08 to Apr 15**

Joined as the 4<sup>th</sup> employee of the Product team and promoted to Director – Backoffice(core) Development, after many successful product and client implementations.

- Co-lead concept, technical architecture and development of a loyalty platform, “Alchemy”, built to service across retail, financial, travel, healthcare, hospitality, entertainment, gaming, and telecom verticals
- Alchemy Campaign Engine design, development and implementation, allowing for a new level of granularity and optimization within campaign design and deployment
- Alchemy platform redesign (database re-architecture to support high availability through independent shards, Interface Enhancement), Wildfly(previously JBOSS) upgrade;
- Real-time Enterprise Data Warehouse integration; new rules-based discounting and decisioning engine design and development; central server implementation for handling high volume messaging.
- Served as engineering consultant for several client implementations

Other accomplishments include:

- 80ms system average response time for realtime POS transactions during peak volume
- **AMC Stubs** program(350+ theatres and 5000+ POS Installs) is industry recognized as one of the most successful, complex and profitable loyalty implementations to date
- Served as a solo backend development resource between 2009 and 2011
- Successful implementations earned 6x revenue and tripled company’s size(employees).

### **BrittPaulk Insurance, US**

**Feb 07 to Mar 08**

#### **Project: OPUS(On-line Policy Underwriting System)**

As a *Software Consultant*: gathered requirements; designed, developed, and tested the Aviation OPUS and Web-PICS system; designed and developed interfaces between BrittPaulk and Munich Re America, as well as BrittPaulk and AXA.

**Verizon, US**  
**Project: XRM (eXtended Request Manager)**

**Nov 05 to Jan 07**

As a *Programmer-Analyst*: responsible for high-level design, development and testing of the WADSL and DSL workflows and other workflow related components.

**Kaiser Permanente, San Francisco, CA**  
**Project: Nutritional Services System.**

**Dev 03 to Oct 05**

As a *Software Engineer*: maintained and managed the NSS Suite interface; coordinated with Kaiser Permanente Customers to resolve the issues.

**Convergys US**

**Jun 02 to Nov 03**

As a *Jr. Software Engineer* (hired from campus): responsible for providing technical support/production support for Convergys's clients, including AT&T and Sprint; coordinated with remote teams and developed scripts, minor enhancements.

## **SKILL SETS**

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Cloud	Azure, Oracle Cloud, Nutanix, AWS
Kubernetes Platforms	Openshift on OCI and Azure, NKP on NCI, OKE on OCI, Open source K8s on AWS IaaS.
Infrastructure	Docker, Ansible, Terraform, Packer, Chef, Azure Devops, Jenkins, Nagios, Networking
Operating Systems	Linux, Windows, Solaris, IBM-AIX
Languages	Scala, Python, Java/J2EE, Javascript, Node.js, Typescript, Perl
Databases	PostgreSQL, Mongo, Cassandra, Oracle, SQL Server, Sybase ASA
Messaging	Azure ServiceBus, Eventhub, OCI Streaming, Kafka, ActiveMQ
Application/Web Servers	Wildfly/JBOSS, Netty, Nginx, Lighthttpd, Tomcat, Weblogic
Frameworks	Apache Spark, Ambari(Hadoop), Zookeeper, Pandas, Flask, Play Framework, Akka, Apache Camel, Vue.js, Backbone.js, Drools, J2EE(EJB, JMS, Hibernate, JDBC), Solr, Struts, Memcache
Loadbalancer	Azure Front Door, Application Gateway, Azure and OCI Loadbalancers, Cloudflare, HAProxy, Nginx

## **EDUCATION**

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1. Masters in Computer Applications