Prithvipal Singh

Staff Software Engineer · Backend, Cloud & Security Platforms

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SUMMARY

Software engineer with 13+ years of experience building and leading backend and distributed systems across DNS security, cyber security, hybrid cloud and healthcare domains. Strong in Golang, Java, Linux, Docker and Kubernetes, with 5+ years of technical leadership covering architecture, design and delivery of multi-tenant, multi-cloud SaaS platforms. Author of "Hands-on Go Programming" (BPB Publications) and an active contributor to the Go and open source community.

SKILLS

Languages: Golang, Python, Java (Spring, Hibernate), Node.js, Shell

Cloud & Infra: Kubernetes, Helm, CoreDNS, Docker, AWS, Azure, GCP, OpenStack, Grafana

Architecture & APIs: Microservices, REST, gRPC, Distributed Systems, Multi-tenant SaaS, Design Patterns, Domain-Driven Design

Data & Messaging: PostgreSQL, MySQL, MongoDB, Redis, Kafka, Databricks

AI: LLMs, Model Context Protocol (MCP)

Security: DNS Security / Protective DNS, Threat Intelligence, External Attack Surface Management (EASM), CTEM

WORK EXPERIENCE

Infoblox 08/2021 - Present

Staff Software Engineer · Bangalore, India

CTEM - Continuous Threat Exposure Management (04/2025 - Present)

- Started as a speed boat project inside Infoblox to move fast on a new problem space; the team took it from a blank slate to a released External Attack Surface Management (EASM) capability within 6 months.
- Play architect, lead and hands-on developer roles for the integration of Axur with our EASM platform - owning the integration design, driving it through the team, and writing the core services myself.
- Responsible for service design, API contracts, data model and deployment of the integration on Kubernetes, along with code review and technical mentoring for the team.

B1TDC - DNS Security (08/2021 - Present)

- DNS security product that protects customer devices, users and networks from malicious domains and IPs by resolving DNS queries against Infoblox threat intelligence and enforcing customer-defined security policies.
- Built and maintained the policy path: policies authored by customers are compiled and applied through XCMAL, so that queries to malicious or disallowed destinations are blocked, redirected or logged according to tenant configuration.
- Developed multi-tenant Golang microservices deployed with Docker and Kubernetes, covering policy management, enforcement and reporting at cloud scale.
- Part of the on-call rotation for the service - triaging and resolving production incidents, handling customer-impacting issues and feeding fixes back into the product.

GS Lab 02/2017 - 08/2021

Lead Software Engineer · Pune, India

Cloud Broker (10/2017 - 08/2020)

- Hybrid cloud management platform giving customers a single place to plan, provision, monitor and operate resources across AWS, GCP, Azure, IBM Cloud and Alibaba Cloud, including cost and usage comparison across providers.
- Led a team of 12+ developers and QA engineers; actively involved in project architecture, design discussions and sprint planning.
- Delivered the CAM, Consume, Planning and Insights modules as microservices in Golang, Python and Node.js, deployed via Docker and Kubernetes, with an Angular 5 front end.

ICO - OpenStack Cloud Orchestrator (02/2017 - 09/2017)

- Worked as developer and support engineer on an OpenStack-based cloud orchestration product using Java, Python and shell scripting.
- Handled production issues and direct customer interaction, building strong debugging and incident-handling experience.

Cognizant 08/2016 - 02/2017
Project Associate · India

- Worked on enterprise application development and support in a Java-based stack.

Persistent Systems Limited 11/2013 - 07/2016
Senior Software Engineer · Pune, India

Reporter Dx - Human Genome Analysis (11/2013 - 06/2016)

- Genomics platform that processes human DNA to detect cancer and genetic disease; worked as a Java developer on coding, debugging, refactoring and production issue resolution.
- Built core services with Spring and Hibernate over a relational data model handling large genomic datasets.

VLS Consulting (Persistent Systems) 03/2013 - 10/2013
Software Engineer (Contract) · Pune, India

DHAP - Integration Platform (03/2013 - 10/2013)

- Platform project that integrated the client's applications into a single system; contributed to development and defect resolution.

PUBLICATIONS

Hands-on Go Programming - Author, BPB Publications, Feb 2021
Gets readers productive in Go quickly, covering the fundamentals as well as the advanced features of the language.

Golang for Jobseekers - Technical Reviewer, BPB Publications, June 2023
A comprehensive introduction to Go covering syntax, fundamentals, industry best practices and architectural patterns for scalable, secure and maintainable applications.

OPEN SOURCE CONTRIBUTION

Open Horizon - Developer, Linux Foundation Edge project
Contributed to a platform for deploying containers to edge devices from the Open Horizon Management Hub.

EDUCATION

MCA, University of Pune - 2009 - 2012 · 72.42%
BCA, MLSU, Udaipur - 2006 - 2009 · 69.25%
HSC, RBSE Ajmer - 2006 · 59.54%
SSC, RBSE Ajmer - 2004 · 54.33%