

Krishna Kumar Verma

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Professional Summary

Backend and AI Engineer with 3+ years of experience building secure, scalable systems in Golang, Rust, and Python. Strong in distributed microservices, REST APIs, high-throughput data pipelines, and cryptographic systems, with applied AI experience spanning tool-calling agents and MCP integrations, LLM pipeline security and guardrails, and ML/OCR-based detection over unstructured data. Currently architecting a DPDP-compliance Data Discovery platform and a centralised enterprise Key Management System; previously built ML-driven malware defense for embedded Linux and cloud-connected IoT platforms.

Experience

Timble Technologies Pvt Ltd **Feb 2025 – Present**
Software Development Engineer *Delhi, India*

- Architected a **Data Discovery platform** for DPDP compliance that enables organizations to discover, classify, govern, and monitor sensitive data across enterprise systems through Findings Explorer, Business Glossary, Data Lineage, Data Stewardship, Data Classification, Data Quality Profiling, and Master Data Management (MDM), exposed via secure APIs with role-based access control for centralized management of discovery jobs, policies, findings, and compliance reporting
- Built **data connectors** for PostgreSQL, MySQL, MSSQL, Oracle, MongoDB, DynamoDB, SQLite, Microsoft 365, SFTP, and FTPS, feeding a **scanning and analysis engine** that identifies sensitive information across databases, documents, emails, PDFs, images, and text files using configurable detection rules, confidence scoring, and risk assessment
- Implemented **automated discovery workflows** (scheduled scans, data sampling, policy-driven classification) and a **cross-platform endpoint agent** for Windows, Linux, and macOS performing local discovery and data leakage control, securely sending only metadata and findings to the central platform while providing enterprise-wide visibility
- Built an **MCP server and tool-calling AI agent** in Go exposing the detection engine as an agent tool for natural-language scan orchestration and risk summarization, with **AI security guardrails** for LLM pipelines: PII redaction before inference, prompt-injection filtering, schema-validated outputs, and full audit logging
- Designed a centralised **Key Management System** for a public-sector bank on HashiCorp Vault and Consul (AES-256, RSA-4096, PGP, Shamir's Secret Sharing for unseal and recovery); supported the bank's source-code security audit and remediated its findings
- Created AI-assisted document verification and government identity-check services (PAN, GST, EPFO) with rate limiting and Prometheus/Grafana monitoring

WhiteLint Global Pvt Ltd **Jan 2023 – Mar 2024**
Software Developer – R&D *Delhi, India*

- Engineered “Wafer”, a malware defense system for embedded Linux endpoints using ML-based behavioral analysis for detection and response
- Migrated on-premise device telemetry to Azure IoT Hub (hybrid cloud) and built a Golang network-management platform for remote SSH orchestration across distributed endpoints with automated failover and health monitoring
- Implemented CI/CD pipelines and a microservices architecture enabling zero-downtime production releases

Sofcon India Pvt Ltd **Jan 2022 – Dec 2022**
Software Engineer *Delhi, India*

- Developed data-processing pipelines integrated with ML models for real-time assessments, using batched and parallel execution
- Built RESTful APIs with FastAPI and PostgreSQL serving analytics dashboards, tuning query performance with database indexing and caching

Technical Skills

Languages: Golang, Rust, Python, C++, SQL, Bash

Backend Frameworks: Gin, Axum, FastAPI, Django, Flask

Databases: PostgreSQL, MySQL

Cloud & Infrastructure: AWS (EC2, S3, Lambda, RDS), Azure IoT Hub, Docker, Kubernetes, RabbitMQ, Nginx, Linux

Security: HashiCorp Vault, Consul, TLS 1.3/mTLS, Suricata, iptables

Monitoring & DevOps: Grafana, Prometheus, CI/CD, Git

Key Projects

AI Image Colorization System **Python, Stable Diffusion, ControlNet, PyTorch, Gradio**
– Built a tool that turns black-and-white photos into realistic color images using Stable Diffusion and ControlNet

Hotel Booking Analysis **Python, Jupyter, Data Visualization**
– Studied 119,000 real hotel bookings to understand what drives reservations and cancellations, cleaning the raw data and presenting the findings through clear visualizations

Education

Rajkiya Engineering College Sonbhadra **2017 – 2021**
B.Tech in Electronics Engineering

Certifications & Achievements

- **Achievements:** 5-Star Python rating on HackerRank – 34 public repositories on GitHub spanning Go, Python, and security tooling
- **Certifications:** Python Programming – REST API Development – Data Analysis & Visualization
- **Mentorship:** Mentored junior developers on backend engineering and code review