

# AMIT KAMALBHAI DHANANI

## IT & CYBERSECURITY CONSULTANT

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### EXECUTIVE PROFESSIONAL PROFILE & OBJECTIVE

Highly accomplished, high-ownership IT & Cybersecurity Consultant with around 10 years of experience spanning comprehensive institutional employment, internships, and strategic high-impact freelancing. Specializing in autonomous end-to-end infrastructure architecture execution, enterprise-scale DevSecOps pipelines, kernel-level Linux Administration engineering, advanced Machine Learning implementations, and secure System Design optimized for specialized domains like High-Frequency Trading (HFT). Proven capability to engineer custom private cloud ecosystems entirely from scratch without baseline reliance on standard vendor orchestrators. Possesses a strict mandate for decision-making profiles that grant total operational ownership spanning complete technical documentation, cross-functional team building, infrastructure-wide security enforcement, fine-grained performance tuning, and aggressive cost reduction. Strongly committed to a remote-first, high-trust work model that values absolute delivery ethics, innovative R&D, and structural technology stewardship.

### TECHNICAL MATRIX

#### Core Infrastructure & Security

<b>Linux Administration Kernel Internals:</b>	Profound hands-on expertise in kernel diagnostics and subsystem tuning. Proficient in eBPF/XDP network packet parsing, custom kprobe/uprobe tracing, system-call hooking, strace, bpftool, and custom kernel compilation. Master of optimization utilizing sysctl, /proc, and /sys.
<b>Software-Defined Networking:</b>	Advanced implementation of Layer 2 to Layer 7 architectures. Expert in OpenVswitch (OVS) with OpenFlow integration, SDN controllers, VXLAN, GRE, Linux Administration network namespaces, VRF routing, policy-based routing (iproute2), and traffic-shaping via CBQ.
<b>Enterprise Virtualization:</b>	In-depth hypervisor virtualization execution using KVM (NUMA orchestration, PCI/GPU pass-through, HugePages tuning, and SR-IOV configurations across bare-metal Cisco UCS environments), Red Hat Virtualization Manager (RHVM), and VMware VCenter ESXi.
<b>DevSecOps &amp; Automation:</b>	Deep continuous delivery pipeline integrations via GitLab CI/CD and Jenkins. Structural policy configuration utilizing Open Policy Agent (OPA) and Rego. Fluent across configuration management tooling: Ansible, Terraform, Chef, and Puppet.
<b>Network Firewalls &amp; Edge:</b>	Robust deployment profiles of WAF/WAAF platforms (ModSecurity, Squid caching), Snort IDS/IPS, iptables, nftables, and advanced Email Security architectures.
<b>Identity &amp; IAM Frameworks:</b>	Production deployment of unified authentication vectors: JWT, SAML, OAuth 2.x, OpenID Connect (OIDC), multi-master 389-ds LDAP directory service replications, and Secure Security Services Daemon (SSSD) integrations with Active Directory.

#### Cloud, Data, Security & Core Languages

<b>AWS Architecture:</b>	Comprehensive Cloud Architecture deployment: Multi-Account Management via AWS Control Tower & SCPs, EKS (Managed nodes, custom CNI/CSI, Helm), ECS Fargate,
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AWS Network Firewall, Transit Gateway, Lambda/Step Functions, GuardDuty, Macie, Inspector, KMS, and Aurora/DynamoDB clusters.

<b>Data Science &amp; MLOps:</b>	Advanced mathematical modeling and data architectures. Hands-on frameworks: TensorFlow, Keras, PyTorch, and OpenCV utilizing CUDA/GPU execution. Deployment architectures via MLflow, AWS SageMaker, and robust LLMops pipelines.
<b>Polyglot Software Engineering:</b>	Production-grade infrastructure software design and development capability spanning: Python (Boto3, FastAPI, Flask, Tornado, Scrapy), Bash, Go, Rust, C, Perl, Ruby, Expect scripting, and fundamental web blocks (HTML, CSS, DOM, JavaScript).
<b>Kubernetes &amp; OCI:</b>	Bare-metal High Availability clusters, strict RBAC, network topologies (Calico, Cilium, Istio Service Mesh), Pod Security Admissions, custom Kubernetes Controller/Operator designs with MetaController, and OCI runtimes (runc, containerd, Docker Scout).
<b>Penetration Testing:</b>	Full-Spectrum Penetration Testing & Cryptography: Infrastructure, network, web application, and LLM pentesting against OWASP Top 10 standards. Expert utilization of Kali Linux Administration suite (Burp Suite, Scapy packet crafting, Nmap, Metasploit, Wireshark). Deep implementation of Asymmetric/Symmetric Cryptography and PKI.
<b>Datastores &amp; Observability:</b>	High Availability clustering across relational and NoSQL frameworks: MySQL, MariaDB, PostgreSQL (advanced automated replication topologies), MongoDB, CouchDB, Neo4j Graph DB, and Elasticsearch/Logstash/Kibana (ELK) monitoring. Production diagnostics with Prometheus, Grafana, Zabbix, Nagios, and NewRelic.

## CHRONOLOGICAL PROFESSIONAL EXPERIENCE

### Curious at IT — IT Consultant & Principal System Architect (Freelance)

Feb 2024 - Present

- Engineered small to mid-scale enterprise solutions as an autonomous technical authority, providing full architectural design, technology selections, implementation strategies, and highly granular infrastructure documentation.
- Consulted on specialized Cloud Native security structures utilizing Open Policy Agent (OPA) for Policy-as-Code verification across multi-region AWS footprints, Docker containers, and Kubernetes namespaces.
- Architected edge computing and IoT infrastructure proofs-of-concept incorporating lightweight K3s orchestration, Raspberry Pi deployment targets, and secure communication baselines.
- Designed Large Language Model (LLM) environments, engineering Retrieval-Augmented Generation (RAG) paradigms using advanced vector datastores, document chunking mechanics, word embeddings, and cosine similarity lookup APIs.
- Developed comprehensive automated infrastructure validation suites utilizing Python (Boto3), Ansible, and Terraform to guarantee deterministic rollouts and active state verification.

### Wipro — Technical Lead for DevOps/SRE/Infrastructure Automation

Oct 2023 - Jan 2024

- Served as the primary technical decision-maker governing site reliability engineering operations and custom automated deployments across scaled Linux Administration server farms.
- Orchestrated structural maintenance, tuning, and cluster diagnostic mechanisms on enterprise Hadoop big data infrastructure, stabilizing data pipelines under intensive throughput stress.
- Built high-fidelity automation routines utilizing complex Ansible playbooks, specialized Python scripts, and integrated Jenkins pipelines to drive deterministic deployment of stateful Kubernetes pods and container tasks.

**Independent Enterprise Consultant — Cloud, Linux Administration Infrastructure & DevSecOps Engineering** June 2022 - Oct 2023

- Contracted directly with corporate entities to resolve challenging multi-disciplinary technical issues across complex Linux Administration infrastructure, public AWS landscapes, and comprehensive penetration testing regimes.
- Architected and executed an end-to-end KVM and OpenStack private cloud environment, custom-configured to support specialized bare-metal GPU clustering for deep neural network training.
- Programmed advanced multi-layered deep learning models utilizing TensorFlow, Keras, and PyTorch, optimizing parallel processing paths via native NVIDIA CUDA library tuning.

**Zummit Infolabs — Advanced Data Science & Machine Learning Intern** Jan 2022 - May 2022

- Conducted mathematical modeling and statistical research across advanced machine learning algorithms, covering PCA dimensionality reductions, standardizations, SVMs, CNNs, and LSTM/RNN time-series models.
- Built an end-to-end computer vision and object detection architecture utilizing YOLOv5, PyTorch, Dlib, and OpenCV to support production-grade facial recognition, currency validation, and multi-font text extraction.
- Integrated deep learning execution frameworks into lightweight, highly performant APIs via FastAPI, deploying solutions on GPU-accelerated AWS Ubuntu server instances.

**Rocket Software — SDET III (Kernel Diagnostics, Linux Administration Distribution & OpenStack Cloud)** Oct 2019 - Nov 2021

- Directed deep-level operating system testing and configuration management for proprietary enterprise Linux Administration distributions, managing kernel-space stability using the Linux Administration Test Project (LTP) test suite.
- Designed, fixed, and implemented the ABAT System: an entirely custom cloud platform built from scratch on bare-metal, OpenStack cloud architectures, and KVM hypervisors. This platform automates the deployment, provisioning, and evaluation of raw Linux Administration OS distribution tarballs without relying on pre-existing cloud software.
- Wrote custom system-level test harnesses using a polyglot language structure including C, Python, Bash, PHP, Expect, and Perl to orchestrate automated bare-metal deployments, network adjustments, and structural validation.
- Executed advanced IPv6 protocol compliance and functional matrix reviews utilizing the TAHI validation test suite over FreeBSD platforms.
- Conducted web-application penetration testing against the core Internal Cloud Portal (Node.js & MongoDB) and security-tested Snort IDS installations using Metasploit, Scapy network packet crafting, Nemesis, and Nmap.
- Managed multi-tenant Kubernetes environments, packaging cloud-native solutions using Helm charts, configuring custom OCI runtimes (containerd, runc), and debugging platform layouts.

**Flextrade — Senior System Administrator & Infrastructure Architect** Aug 2016 - Sept 2019

- Managed core architecture execution, cross-platform migrations, performance monitoring, and aggressive host machine consolidation across complex Linux Administration, VMware ESXi, OpenStack, and AWS landscapes.
- Designed custom high-efficiency systems for High-Frequency Trading (HFT) environments, tuning Linux Administration kernel execution parameters, optimizing storage layer latencies, and refining shared library execution.
- Programmed advanced internal automation toolkits, including a data center asset tracking solution using Python fabric/paramiko, and interactive system managers using Expect frameworks.

## **Infinity Labs — Enterprise System Administrator**

Dec 2015 - Aug 2016

- Deployed highly resilient Linux Administration systems and cloud-scale infrastructures for telecom environments utilizing Ansible, Chef, and Puppet orchestration suites.
- Architected and implemented a high-priority proof-of-concept for Telecom Malaysia (on behalf of Cisco), nesting Cisco CSR 1000v virtual routers inside Red Hat Enterprise Linux Administration KVM hypervisors utilizing OpenVswitch overlays.
- Managed manual OpenStack private cloud installations across KVM nodes, implementing flat networks, VLAN segmentations, and VXLAN/GRE overlay tunneling.

## **Infostretch Corporation — Site Reliability Engineer & Linux Administration Systems Administrator**

Aug 2015 - Dec 2015

- Managed core provisioning, proactive health monitoring, and system optimization routines for high-density Linux Administration server matrices deployed over Dimension Data cloud frameworks.
- Built an enterprise centralized authentication mechanism by implementing a 389-ds multi-master LDAP directory replication structure secured via end-to-end SSL encryption.
- Configured deep security boundaries across filesystems, integrating automated malware detection toolkits including Maldet, ClamAV, Rkhunter, and Chrootkit.

## **Infosys Limited — Technology Analyst**

Oct 2014 - Apr 2015

- Managed corporate data center environments, performing bare-metal hardware orchestration via HP Integrated Lights-Out (ILO) systems and hypervisor configurations on VMware ESXi platforms.
- Engineered custom system automation routines and infrastructure configuration policies using Puppet and modular shell scripting to streamline operational deployments.

## **Arista Technologies — Junior PHP Programmer & Linux Administration Administrator**

Nov 2012 - Oct 2013

- Developed core web applications using PHP, MySQL, Joomla, and Magento, while managing corporate Ubuntu and CentOS server environments.
- Configured office file infrastructure via Samba, deployed corporate mail routing via Sendmail, and automated system maintenance using cron tasks and shell scripts.

## **Antriksh Communications — Network Engineer & Systems Programmer**

June 2005 - May 2006

- Built secure proxy systems via Squid, implementing strict IP-based, time-based, and domain-restricted access controls for corporate clients including Gitco and Cera Ceramic.
- Configured Sendmail mail servers, integrating MimeDefang, ClamAV, and custom size/extension filtering rules to enforce spam control and Email Security protection.
- Developed a high-volume judgment search portal for the Gujarat High Court utilizing an optimized PHP and MySQL back-end architecture.
- Delivered corporate and institutional Linux Administration training programs for professional organizations and academic bodies, including DAIICT and the Indian Air Force.

## **ARCHITECTURAL PROOFS-OF-CONCEPT & OPEN-SOURCE PROJECTS**

### **AWS EKS, Terraform, Helm & Consul Service Mesh Integration**

[github.com/amitdhanani2012/Terraform-eks-consul-helm-aws-amit](https://github.com/amitdhanani2012/Terraform-eks-consul-helm-aws-amit)

Developed a comprehensive, production-ready repository demonstrating automated provisioning of highly available AWS EKS clusters using Terraform. Integrates HashiCorp Consul Service Mesh via Helm charts, configuring end-to-end mutual TLS (mTLS), custom storage classes via the AWS EBS CSI driver, and automated node-group scaling.

## "Panel Solution"

Engineered a comprehensive web-based graphical management framework designed for autonomous Linux Administration system administration. Written in core PHP and Bash shell scripts, it allows administrators to safely perform complex operations via sudoer configurations. Features include user account provisioning, real-time automated responders, virus scanning definitions, and advanced MimeDefang mail content filters.

## AWS ECS WordPress Container Infrastructure with S3 Media Offload

[github.com/amitdhanani2012/ecs-wordpress-terraform-poc](https://github.com/amitdhanani2012/ecs-wordpress-terraform-poc)

Designed a highly resilient, containerized web cluster using AWS ECS Fargate, managed entirely via Terraform. The architecture separates stateful storage by offloading media assets to encrypted AWS S3 buckets and configures an automated Multi-AZ MariaDB RDS replication back-end.

## Automated WordPress Configuration Engine

[github.com/amitdhanani2012/wordpressconfigurator](https://github.com/amitdhanani2012/wordpressconfigurator)

Programmed a shell-scripted configuration framework that automatically installs and optimizes Nginx, MySQL, and WordPress instances. It features automated virtual host provisioning, fine-grained access permissions, and log rotation policies.

## AWS Network Firewall Infrastructure Provisioning Platform

[github.com/amitdhanani2012/aws-firewall-poc1](https://github.com/amitdhanani2012/aws-firewall-poc1)

Created a modular Terraform project that deploys the AWS Network Firewall service inside multi-AZ VPC topologies. The architecture includes complex routing tables, Transit Gateway integrations, Auto-Scaling EC2 groups, and Network Load Balancers to enforce deep packet inspection across all traffic boundaries.

## Volunteer ML Research: Continuous Gravitational Wave Detection (Kaggle / PyFstat)

[github.com/amitdhanani2012/G2net-CGW](https://github.com/amitdhanani2012/G2net-CGW)

Contributed to a volunteer astrophysics data science challenge focused on detecting continuous gravitational waves within noisy simulated data streams from the H1, L1, and V1 detectors. Developed an optimized feature extraction framework that isolates maximum amplitude signals across specific frequencies, achieving perfect results on a custom Perceptron model across targeted 100Hz domains.

## EARLY CAREER HISTORY & ACADEMIC RESEARCH FOUNDATIONS

- **Antriksh Communications (Technical Internship)** | Jan 2005 - June 2005: Configured baseline RedHat 8/9 and Fedora environments; engineered an early PHP/MySQL engine to search historical judicial judgments.
- **Wiptech Inc. (Technical Internship)** | Jan 2002 - May 2002: Executed basic hardware assembly, physical LAN routing, Windows 95/98 installations, and early Caldera Linux Administration test installations.
- **Autonomous Technical Educator** | Nov 2011 - May 2012: Delivered structured home-based lectures specializing in Linux Administration Systems Administration foundations, core PHP syntax, and MySQL relational logic.
- **Academic Engineering Seminar Whitepaper:** Evaluated standard transport-layer vectors, covering SYN floods, hijacking mechanics, and mitigation strategies.
- **Low-Level Software Project:** Binary Hex Editor programmed in pure C, interfacing with direct disk offsets.
- **Low-Level Assembly Project:** Floppy Sector Reader utilizing BIOS Interrupt 13h routines to read, parse, and output raw sectors from magnetic media.

## ACADEMIC PROFILE & CREDENTIALS

Degree / Credentials	Institution / Board	Timeline	Performance
Bachelor of Computer Engineering	Sardar Vallabhbhai Patel Institute of Technology, Gujarat University	2002 - 2005	57.78%
			77.54%

Degree / Credentials	Institution / Board	Timeline	Performance
Diploma in Computer Engineering	B & B Institute of Technology, Technical Examination Board	1999 - 2002	
Higher Secondary Certificate (HSC - 12th)	DCC Vividh Lakshi High School, Jamnagar	March 1999	64.15%
Secondary School Certificate (SSC - 10th)	St. Xavier's High School, Jamnagar	March 1997	77.14%

## PROFESSIONAL CERTIFICATIONS & CONTINUOUS LEARNING

- **Brainbench International Certifications:** Successfully challenged and passed 23 comprehensive technical certifications covering systems administration, programming logic, and network architecture (Transcript Security ID: 2655410).
- **Proactive R&D Investment:** Maintains active enterprise subscriptions to technical learning ecosystems (O'Reilly Media Safari Books Online, Udemy Business) combined with high-compute local physical labs and cloud sandbox accounts dedicated to active continuous architectural experimentation.

## PERSONAL CREED, SOVEREIGNTY & STRUCTURAL WORK ETHICS

*"I view Information Technology as my defining intellectual passion; compensation remains an essential byproduct of rigorous execution. I operate under an unyielding model of professional commitment, absolute transparency, exhaustive technical documentation, and total system ownership. I hold no adherence to orthodox dogmas or organized labels, choosing instead to anchor my character in unconditional love, precise ethics, and mutual human support.*

*As a dedicated permaculture and sustainable farming enthusiast, I actively structure my professional lifecycle to allow for remote execution alongside hobby agriculture. I actively seek out collaborations with scientific minds, deep philosophers, and advanced academic bodies to continuously expand my baseline horizons, contributing meaningful engineering insights toward the betterment of human society."*