

# AADITYA M NAIR

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Senior Infrastructure Engineer with 7+ years of experience building and operating infrastructure at hyperscale. Deep expertise in fleet configuration management, reliability engineering, incident management, and security-hardened infrastructure. Currently owning configuration and lifecycle of 14M+ servers at Meta.

## EXPERIENCE

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### Meta Inc.

Aug 2022 - Present

#### Senior Production Engineer

London, UK

- Own the server configuration layer of Meta's container orchestration platform (**Tupperware**) and serve as the **primary fleet expert** for partner teams across the org.
  - Responsible for ensuring **14M+ physical servers** are always correctly and consistently configured across the fleet, owning the full configuration lifecycle from policy definition to rollout.
  - Deep familiarity with Host Agent, the job-specific configuration data-plane, managing around 10 different configuration verticals, covering both client and server sides and how it interacts with the broader fleet platform.
  - Leveraged deep platform knowledge to **partner with service owners across the org**, migrating workloads onto the container platform and directly contributing to **\$100M+ in infrastructure operations cost savings**.
  - Part of the **Incident Management rotation** and escalation path for hard-to-diagnose fleet issues, spanning fleet software failures through to hardware problems.
  - Debug and resolve complex host-level issues across the fleet — spanning **kernel, storage, networking, and host software** — serving as an escalation point for problems that cut across team boundaries.
  - Currently driving provisioning speed improvements, targeting **50% reduction in time-to-ready**.
- Serve as the internal SME for Meta's **Chef** platform — the generic **Infrastructure-as-Code** platform that runs reliably across **14M+ servers every 15 minutes**.
  - Deep expertise across the full stack — client and server configuration, cookbook development, and pipeline architecture.
  - Delivered multiple improvements to the **performance, reliability, DR readiness, and security** of the Chef infrastructure serving **14M+ hosts**.
  - Authored Chef-focused runbooks and training materials adopted as the standard onboarding reference across the team.
- Lead the introduction of **new hardware and software environments** into the fleet.
  - Onboarded new hardware types and environments including **CentOS 10, cloud-based machines and ARM servers**.
  - Debugged and resolved complex infrastructure issues across **disk, network, routing, and firewall** layers throughout onboarding, navigating the unique challenges of integrating **cloud and on-prem infrastructure at scale**
- Execute annual **SOX and PCI compliance** obligations for fleet infrastructure.
  - Led evidence gathering and liaison with audit teams across annual compliance cycles.
  - Refined existing compliance processes to streamline evidence gathering, reducing time and overhead year-on-year.
- Interviewed and evaluated candidates for production engineering roles; onboarded new hires through hands-on mentoring.

## Tower Research Capital

Software Engineer - III (Information Security)

Jul 2019 - Jun 2022

Gurugram, IN

- Engineered and maintained **core security infrastructure platforms**:
  - **Cerebro**: A **high-throughput SIEM platform** and correlation engine based on the ELK stack and redis for caching and low latency log processing.
  - **Hashicorp Vault**: Firm's **sole secrets platform**; onboarded **60% of teams** and all of **PKI Infrastructure**.
  - **Cypher**: OAuth2 like service managing ACLs for **all internal services**.
- Drove **security posture improvements** across the firm in all layers of the stack.
  - Implemented compliant shell command tracking and service account usage across all servers.
  - Introduced **network restrictions and traffic monitoring** to prevent Intellectual Property theft.
  - Rolled out **HIBP monitoring, Yubikey deployment, and centralised password management** (via Bitwarden) across the company.
  - Led the enablement of **Slack EKM**, ensuring Tower retained the keys for all internal messaging.
- Partnered with **legal and compliance teams** to enable new platforms.
  - Helped develop **security expectations and a security-based tiering system** for crypto exchanges.
  - Developed similar security requirements for onboarding other third party vendors.
  - Supported **infrastructure audit obligations** (like SOC2) and related evidence collection.
- Led **company wide WFH enablement** during start of Covid.
  - Enabled **enterprise management** and deployed **macBooks and iPhones** to employees.
  - Served as SME for all things **enterprise Apple** within the company.
  - Led the buildout and testing of **AWS Workspaces** as an alternative cloud based solution.
- Interviewed candidates for the team. Also helped train junior SOC Analysts as the team grew.

## Facebook Inc.

Production Engineering Intern

June 2017 – Sept 2017

London, UK

- Redesigned Hypershell's (*run ssh commands on a grand scale*) storage backend to HDFS and built a unified storage API, achieving **more than 90%** improvement in read/aggregate performance.

## IIIT-Hyderabad

System Administrator (part-time)

Sept 2016 – May 2019

Hyderabad, IN

- Managed multiple services including the **internet proxy, LDAP, DNS and VMs**. These products served **~3000 people** at any time.

## SKILLS

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**Core:** Reliability Engineering, Incident Management, Security

**Infrastructure:** Docker, Chef (IaC), HashiCorp Vault, ELK Stack

**Systems:** Linux Internals, Networking (TCP/IP, BGP), Distributed Systems, IAM

**Cloud:** AWS (EC2, VPC, Workspaces), Hybrid Cloud Architecture

**Languages:** Python, Ruby, Bash, Rust, C++

## EDUCATION

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### IIIT-Hyderabad

2013 – 2020

B.Tech + MS (By Research) in Computer Science

Thesis on [Erasure Coding for Distributed Storage](#); research papers on [Google Scholar](#)

Research Assistant at the [Signal Processing and Communications](#) lab.

Earned [Runner-Up Best Paper](#) award at [NCC 2019](#)