

# Ujjawal Pathak

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ujjawalpathak.github.io • Open to Relocation

## SUMMARY

- Infrastructure Engineer with 6+ years owning and operating large-scale production systems (~27M req/day)
- Owned production cloud and hybrid systems using infrastructure-as-code automation, and SRE practices
- Supported Tier-1 services with SLOs, alerting, incident response, and on-call ownership
- Built and operated production infrastructure tooling and services in Python and Java

## WORK EXPERIENCE

### Senior Infrastructure Engineer • HomeSource Systems

June 2024 – Present

- Led greenfield design and build of a multi-environment Amazon EKS platform (3 clusters, 120 nodes) enabling CI/CD and GitOps deployments with near-zero production rollbacks.
- Designed multi-tenant ingress and traffic routing for 400+ customer websites handling ~27M req/day, enabling versioned deployments, plan-based feature isolation, and zero-downtime upgrades.
- Reduced abusive and scraping traffic by ~50% using L7 rate limiting, bot detection, and TLS fingerprinting, directly improving service availability from 99.7% to 99.95%.
- Built a Python + Pulumi IaC framework managing AWS infrastructure (VPC, EKS, RDS, S3) across 3 environments, cutting provisioning time to minutes and standardizing infrastructure patterns.
- Served as primary infrastructure owner defining SLOs, tuning autoscaling and resource limits to reduce MTTR and cut false alerts by 30%.
- Built internal automation using AI agents to analyze logs and alerts, reducing manual triage time during incidents and improving on-call efficiency.

### DevOps Engineer Intern • Silicon Labs

May 2023 – August 2023

- Coordinated with IT, CAD engineering, and security teams to migrate enterprise systems from RHEL7 to RHEL9, avoiding approximately \$180K in licensing costs.
- Built an internal IAM workflow tool using React, Flask, and Bash to streamline HPC user validation and access troubleshooting for engineering teams.

### Platform Engineer • Thoughtworks

July 2021 – August 2022

- Built and operated a distributed Customer Data Platform on VMware Tanzu for a large banking client serving 5M+ customers, supporting core banking workflows under strict 99.9% availability and regulatory compliance requirements.
- Contributed to reducing P95 request latency from 50ms to 12ms by driving infra and service-level optimizations, maintaining 99.9% availability under peak load.
- Developed standardized Helm charts and end-to-end CI/CD pipelines with security gates (Checkmarx, Twistlock) for container and dependency scanning, adopted by 8 cross-functional teams.
- Designed distributed data replication architecture using Kafka and Debezium CDC pipelines (500K+ events/day), enabling real-time analytics via Trino while ensuring 99.5% data consistency.

### Platform Engineer • Atos

August 2018 – May 2021

- Transitioned into the DevOps team and led on-prem to AWS migration, building automation and one-click pipelines for infrastructure provisioning and application deployment.
- Automated IIoT data pipeline infrastructure, provisioning Kafka, NiFi, and Cassandra with Ansible and Python, achieving 99.5% data consistency and improving operational reliability.

## TECHNICAL SKILLS

### Programming

- Python, Java, Bash, SQL

### Cloud & Platforms

- AWS, Kubernetes (EKS), Docker, Hybrid Cloud

### Infrastructure as Code

- Terraform, Pulumi, Ansible, CloudFormation

### CI/CD & GitOps

- ArgoCD, Jenkins, GitHub Actions, Helm

### Observability & Reliability

- Prometheus, OpenTelemetry, Jaeger, Datadog

### Data Platforms

- Kafka, Debezium, CDC pipelines

### Operating Systems & Networking

- Linux, systemd, TCP/IP, DNS, TLS, L4/L7 load balancing

### Certifications

- AWS Certified Solutions Architect – Associate

## EDUCATION

Master of Science in Computer Engineering – Stony Brook University (SUNY), NY (2022-2024)

Bachelor of Engineering – Ramaiah Institute of Technology, India (2014-2018)