

Tushar Kumar Barman

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Professional Summary

Software Engineer with 2+ years of experience building cloud platforms, CI systems, and developer tools at Intel. Hands-on with **AWS, Kubernetes, Terraform, Python, and observability**. Built provisioning services and golden-image pipelines, deployed **AI inference workloads on Kubernetes**, and created dashboards that helped teams monitor CI reliability across **1,000+ systems**.

Experience

Software Development Engineer | DevOps and Platform Engineering

Jul 2024 - Feb 2026

Intel Corporation

Hyderabad, India

- Validated scalable CPU-based AI inference on a private **AWS EKS/Kubernetes** platform by deploying **FastAPI, OpenVINO, and OVMS**; provisioned the cluster with Terraform and tested ALB routing, readiness probes, metrics-server, **Horizontal Pod Autoscaling (HPA)**, and failure recovery.
- Simplified Jenkins validation by building a **FastAPI provisioning service** that reserved machines, deployed operating systems, and tracked request status; defined the AWS stack in **Terraform** and shipped it on ECS Fargate with ALB, IAM, SQS, DynamoDB, CloudWatch, and GitHub Actions.
- Gave platform teams a consistent view of OneCloud and GTAX reservations by building **GitHub Actions collectors** that normalized provider responses and published clean telemetry to **Elasticsearch**.
- Safeguarded Intel oneAPI releases with **Jenkins CI pipelines** that brought together cross-team components, acceptance tests, Coverity and BDBA security scans, and market-readiness checks.
- Reduced environment drift and validation failures by standardizing Windows and Linux test environments with **Packer-built golden images**, AWS EC2-based WIM creation, Artifactory versioning, and repeatable OneCloud/PXE deployment.
- Improved capacity planning and issue detection across **1,000+ cloud systems** with **Grafana SLA/SLO dashboards** tracking utilization, GitHub failures, and compute lost to dirty images.
- Developed and released Intel **DPC++/C++ IDE extensions** for Visual Studio and Eclipse, giving developers project-property controls for compiler flags; resolved MSBuild and package-loading regressions using WinDBG and trace logs, and expanded CI coverage for subsequent releases.

Infrastructure and DevOps Intern

Jan 2024 - Jun 2024

Intel Corporation

Hyderabad, India

- Resolved data-quality, visualization, and reporting-script defects in production **Grafana observability dashboards**, helping teams make more dependable CI capacity decisions.
- Strengthened AIOps failure detection by classifying **1M+ infrastructure log lines** into curated, labeled datasets for build and test systems.

Education

ME in Computer Science

BITS Pilani

Aug 2022 - Jun 2024

GPA: 8.95

BE in Computer Science

Assam Engineering College

Aug 2017 - Sep 2021

76.55%

Publications

Does Varying BeeGFS Configuration Affect the I/O Performance of HPC Workloads? IEEE Cluster 2023
doi.org/10.1109/CLUSTERWorkshops61457.2023.00010

- Provisioned a **10-node bare-metal BeeGFS cluster** and configured management, metadata, storage, and client nodes with **Ansible**; benchmarked I/O throughput using IOR, DLIO, and HACC-IO.

Technical Skills

AI: AI agents, MCP, Codex, Claude Code, OpenAI API, Gemini API, LiveKit Agents, STT/TTS, OpenVINO, OVMS, AI inference, model serving, AIOps

Cloud: AWS (EC2, ECS Fargate, ECR, EKS, ALB, IAM, VPC, S3, SQS, CloudWatch), Azure, GCP, OCI, Kubernetes, Docker, Terraform (IaC), Packer, Ansible, Argo CD, GitOps, GitHub Actions, Jenkins, Artifactory, Grafana, CI/CD, Linux, IaaS, PaaS, SaaS

Backend: REST APIs, FastAPI, DynamoDB, PostgreSQL, Redis, Kafka, MongoDB, Elasticsearch, pytest

Languages: Python, C++, JavaScript, TypeScript, SQL, Bash