

ANKIT PAUDEL

DevOps Engineer / SRE | Backend Software Engineer | Platform Engineer (Python, Go)

Kathmandu, Nepal

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PROFESSIONAL EXPERIENCE

• Docsumo

Remote / Singapore

Senior SRE/Devops/Platform Engineer

Jan 2025 – Present

- Architected, designed, and executed a robust, distributed document-processing pipeline capable of reliably processing millions of documents a month.
- Led team to architect a highly scalable, fault-tolerant backend workflow system using Temporal, utilized by 90% of clients.
- Led team to upgrade numerous legacy backend microservices to the latest Python version, improving code quality and security.
- Improved overall application security and compliance by making it easy to rotate and maintain credentials across numerous cloud native workloads and environments using secrets and parameter management services.
- Developed a seamless Feature Flag management server based on the OpenFeature Spec to streamline the usage of feature flags for Blue-Green deployments, increasing delivery speed and reducing downtime risk.
- Developed systems to automate the creation and management of Ephemeral Dev Environments with minimal resource usage, increasing developer productivity by over 100%.
- Provisioned secure sandboxes for executing arbitrary Python code and implemented robust cloud secret management.
- Defined concrete SLIs and ensured consistent SLA adherence across critical production systems.

DevOps/SRE Engineer

Jan 2023 – Jan 2025

- Owned and maintained multi-tenant Kubernetes clusters, ensuring high availability and performance.
- Successfully migrated live production serving Kubernetes infrastructure from Ingress to Gateway API with zero downtime.
- Improved data storage architecture of Python microservices backend by reorganizing data models and optimizing data accesses, reducing database latency by over 30%.
- Developed an automated system for the provisioning and de-provisioning of cluster resources to spin up fully-fledged development servers.
- Administered Longhorn for highly available persistent storage across clusters.
- Implemented and configured a highly available metrics management system using Prometheus and Thanos.
- Implemented and maintained a self-hosted High Availability Redis Sentinel Cluster, ensuring next-to-zero downtime during node failures and upgrades.
- Implemented and maintained GitHub Actions CI/CD workflows for multiple repositories involving cross-platform builds and heterogeneous deployment models.
- Led the team to migrate the overall organizational Git workflow from GitLab to GitHub, decreasing operational costs by over 50%.
- Acted as a production incident responder and on-call engineer for early production faults.
- Managed Keda and Horizontal Pod Autoscaler (HPA) for intelligent auto-scaling.

• Yasok Systems

Kathmandu, Nepal

Software Engineer

Feb 2021 – Dec 2022

- Implemented a website-wide search system in an existing application using Python and Meilisearch, including external API integrations for faceted and paginated results at large scale.
- Maintained and added features to a Node.js backend for an ERP application, designing and implementing RESTful HTTP endpoints for client-facing apps.
- Optimized Node.js backend performance by over 50% through Redis and additional caching layers.
- Developed a large-scale asynchronous notification system for internal application alerts using AWS SQS and Lambda.
- Integrated, deployed, and optimized enterprise search clusters across Elasticsearch, Meilisearch, and Azure.

• FuseMachines

Kathmandu, Nepal

AI fellow

Sep 2021 – Dec 2021

- Leveraged different techniques and models to analyze datasets and train Machine Learning models.
- Completed Microdegree on Machine Learning and Deep Learning.

SKILLS

- **Languages:** English (Professional working proficiency), Nepali (Native speaker), Hindi (Professional working proficiency)
- **Cloud, DevOps, and Platform Engineering:** Kubernetes, Gateway API, Helm, Docker, Nix, Terraform (IaC), Prometheus, Thanos, Observability, GitHub Actions (CI/CD pipelines), GitLab CI/CD, Google Cloud Platform (GCP), Azure DevOps, Amazon Web Services (AWS), Secret Management, Cloud Security, Redis, Linux/Unix administration, Bash

- **Backend Engineering:** Python, Flask, FastAPI, Go, API Design, RESTful APIs, System Design, Microservices, Distributed Systems, Workflow Orchestration, Temporal, Celery, C/C++, SQL, PostgreSQL, MongoDB, Redis, JavaScript
- **Computer Science Foundations:** Graphics Programming and Shaders, Linux Networking, Algorithms and Data Structures, Operating Systems, Networking, Object-Oriented Design, Agile/Scrum

EDUCATION

Tribhuvan University IOE, Pulchowk Campus

Kathmandu, Nepal

Bachelor of Computer Engineering in Computer Science

Jan 2018 – Jan 2023

- Percentage: 72%
- Courses: Operating Systems, Theory of Computation, Data Structures and Algorithms, C, OOP using C++, Artificial Intelligence and Machine Learning, Networking, Databases
- Extra-Curricular Activities: Instructor in 1 month software Fellowship: Predominately responsible for designing and conducting classes for docker and other cloud based technologies. Participated in various hackathons and coding competitions.

St. Xavier's College, Maitighar

Kathmandu, Nepal

High-School in Science Major in Science

Jan 2016 – Jan 2018

- CGPA: 3.52
- Courses: Computer Science, Physics, Chemistry, Biology, Maths, English, Nepali

PROJECTS

Hardware/Software Accelerated 3D Renderer

Personal Project (C++, OpenGL)

Apr 2020 – May 2020

- Built a 3D renderer from scratch capable of rendering any 3D model (.obj file).
- Implemented a software renderer using primitive algorithms used by low level graphics drivers to render triangles.

Sorting and Pathfinding Algorithms Visualizer

Personal Project (C++, SDL2)

May 2021 – Jul 2021

- Developed an application to serve as a teaching aid for sorting and pathfinding algorithms.
- Visualized multiple sorting, pathfinding, and graph spanning tree algorithms.

Realtime text similarity Identification

College Final project (Python, Flask, Numpy, Scikit-learn)

May 2020 – Oct 2020

- Used methods like averaging, smooth inverse frequency, and sentence Transformers to detect similarity between two pieces of text.
- Designed the system to aid professors in non-repetitive question preparation for exams.

CERTIFICATIONS

Qbit by Qbit Intro to Quantum Computing

IBM Quantum

Winter school in AI

NAAMI Nepal

AWS Cloud Foundations

AWS

Micro degree in Machine Learning

Fusemachines