Amrit Paudel

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Backend engineer passionate about cloud computing, skilled in building scalable solutions on AWS and GCP with expertise in AI-driven applications, automation, and database management.

Skills

Backend enginnering - Python, Nodejs, Golang GenAl - Langchain, RAG, Document processing Database design and administration - Postgres, Firestore Cloud - AWS, GCP Automation - Cloudformation CDK, Github actions Scripting - Bash, Python

Experience

Software Engineer, Codniv Innovations – Baluwatar, Kathmandu

 Worked with Retrieval-Augmented Generation (RAG) techniques to improve AI-driven information retrieval and document processing workflows.

March 2023 – Present

Dec 2022 – March 2023

- Developed an OCR solution for converting scanned PDFs into searchable digital formats and created efficient parsing and chunking methods for various document formats.
- Worked with Retrieval-Augmented Generation (RAG) techniques to improve AI-driven information retrieval and document processing workflows.
- Worked on a management app using Postgres for data storage, supporting efficient data handling and querying.
- Worked on implementing cloud-native solutions for user and team management, leveraging GCP services (eg. firestore, cloud-run services/jobs) to implement scalable and efficient systems.
- Deployed cloud-native solutions with AWS, leveraging automation tools like CDK for multistage deployments (EC2, CloudFront, RDS, Route 53, Secrets Manager, API Gateway, WebSockets).
- Implemented NGINX for geo-routing, SSL handling, and proxy configurations, ensuring high availability and optimized traffic routing.

Software Engineer Intern, Codniv Innovations – Baluwatar, Kathmandu

- Learned PostgreSQL and gained proficiency in using ORMs for efficient database management.
- Focused on developing well-maintainable, tested software to ensure scalability, performance, and reliability.
- Developed and implemented CI/CD pipelines in Github, and Gitlab for automated testing, deployment, and integration.

Projects

- Mail-based with nodemailer implemented in typescript. Used: ExpressJs, Knex ORM, Postgres.
- <u>BM25 Full-text search</u> implemented in rust, bm25 algorithm for full-text search in text documents.
- AD to BS Rust crate for conversion of AD to BS.

Education