

ANISH SHILPAKAR

✉ anishshilpakar8@gmail.com 📍 Bhaktapur, Nepal 🌐 /anish-shilpakar13 🔄 /JuJu2181

💎 ANISH WRITES 🔗 Personal Website

EDUCATION

Khwopa College of Engineering (T.U)

Bachelor in Computer Engineering

- Percentage: 84.33% (Distinction)

09/2018 – 03/2023

Bhaktapur, Nepal

PROFESSIONAL EXPERIENCE

Leapfrog Technology, Inc.

Software Engineer II / Data Engineer

- Working in US healthcare dataset related to insurance claims, payments and appeals data
- Designed, implemented and managing extract, transform and load (ETL) pipelines in AWS Cloud
- Integrated the Postgresql data warehouse with web app collaborating with web team.
- Integrated Generative AI models for Data Analysis and Reporting.
- Effectively communicated with clients to ensure timely delivery of the client requirements.

07/2025 – Present

Kathmandu, Nepal

Dlytica Inc

Data Engineer II / Data Architect

- Led multiple big data and AI projects across AWS, Azure, and on-premises environments using Kubernetes and OpenShift.
- Designed and implemented scalable data architectures and pipelines ensuring high data quality, reliability, and security.
- Managed sprint planning and multiple projects, leading a data team of engineers and scientists to deliver robust solutions for national and international clients under tight deadlines.
- Contributed to strategic decision-making and operational efficiency through key projects:
 - Built **DataNature** (Spark, Airbyte, Trino, Airflow, MinIO) for telecom/banking, optimizing ETL & warehousing.
 - Delivered **AI360Studio** for Nepali banks with Superset, data models, and performance tuning.
 - Led **AI360 SQL-Agent & Recommendation System** using RAG, LLMs, and vector DBs, enabling banking chatbots & deposit recommendations.

12/2023 – 07/2025

Kathmandu, Nepal

Dlytica Academy

Data Tutor

- Delivered foundational and professional courses in **data engineering and data science** to students.
- Designed and developed course syllabi and study plans for **Dlytica Academy**.
- Conducted data bootcamps and online training sessions to promote **data and AI awareness** among students.

01/2024 – 07/2024

Remote, Canada

Genese Solution

Associate Data Engineer

- Designed and implemented **scalable data pipelines** for clients using **AWS (Glue, S3, Athena, Redshift)** and **Azure (Data Factory, Databricks, SQL Data Warehouse)**.
- Optimized and managed **ETL pipelines** for **Cross River Bank USA** using AWS services.
- Conducted **data analysis on large datasets**, extracting insights to support data-driven decision-making.
- Developed interactive **dashboards and visualizations** using **Power BI** and **Amazon QuickSight** for stakeholders.
- Collaborated with **data scientists and analysts**, ensuring access to high-quality data and leading **proof-of-concept** development for advanced data architectures.

05/2023 – 11/2023

Lalitpur, Nepal

Code Rush Nepal

Data Engineering Apprentice

11/2022 – 04/2023
Lalitpur, Nepal

- Gained expertise in **Data Engineering, AWS, Azure, and Python**, completing AWS and Azure data engineering certifications.
- Developed multiple **data engineering projects** using AWS and Azure, including a **web scraper, stock price notifier, ETL pipeline, and data warehousing solutions**.
- Completed courses on **Python, SQL, Git, MongoDB, Big Data, and Data Science** from Coursera and other platforms.
- Enhanced **leadership, communication, and presentation skills** through soft skills training.

The Sparks Foundation

Data Science and Business Analytics Intern

01/2023 – 02/2023
Remote, Nepal

- Worked on **various data science and analytics projects**, gaining hands-on experience.
- Collaborated with **Data & AI professionals globally**, exchanging knowledge and insights.

Fusemachines

AI Fellow

03/2022 – 04/2023
Kathmandu, Nepal

- Gained expertise in **Machine Learning, Deep Learning, Computer Vision, NLP, and Data Science**.
- Developed AI projects, including an **earthquake damage prediction system** and a **real-time mask detection system**.

CERTIFICATES

- AWS Certified Solutions Architect Associate
- AWS Certified Cloud Practitioner
- Google Cloud Essentials
- Google Cloud Generative AI Fundamentals
- AWS Machine Learning Foundations
- Microdegree in Machine Learning

TECHNICAL SKILLS

Big Data and ETL

Apache Spark, Airbyte, Nifi, Hive, Trino, Kafka, Airflow, OpenMetadata, Kubeflow

Databases and Data Lakehouse

Amazon S3, Redshift, ADLS, Snowflake, MinIO, FAISS, PostgreSQL, Oracle, MySQL, SQL Server, MongoDB

DE and ML Libraries

DBT, Pandas, PySpark, Scikit-Learn, TensorFlow, PyTorch, Keras, Librosa, NumPy, LangChain

Cloud & Infrastructure

AWS, Azure, GCP, Red Hat OpenShift, Kubernetes, Docker, OpenShift, OpenLDAP, GitLab, Open Policy Agent, Linux, Git

BI and Visualization

Superset, PowerBI, Tableau, AWS Quicksight, Matplotlib, Seaborn, Plotly

Languages and Frameworks

Python, SQL, JS, C, C++, PHP, Laravel, Bash, React, Node, Django, Flask, FastAPI

PROJECTS

Automatic Nepali Speech Recognition and Summarizer

06/2022 – 03/2023

- Developed a system converting Nepali speech to text using deep learning (CNN, ResNet, BiLSTM, wav2vec2), and summarizing transcripts with advanced NLP (TextRank, Transformer-mT5).
- Built web app with React frontend + FastAPI backend, offering features: transcript & summary generation, download options, and a clean UI.
- Led full pipeline: training models, integrating recognition and summarization models, data handling, UI and deployment.
- Designed for real-world impact: useful for journalism, legal transcription, business meetings; enhancing accessibility and efficiency in Nepali language speech processing.

Automatic Nepali Number Plate Recognition System

12/2021 – 02/2022

- Built a system to **detect Nepali vehicle number plates** and recognize the characters using deep learning.
- Used **YOLOv4** for both number-plate detection and character segmentation; employed a CNN model for character recognition.
- Integrated the detection & recognition models into a **Django web application**, enabling users to upload images/videos and view results.

- Set up input/output handling with media folder structure (images/videos, detected outputs) for smooth file management.
- Trained and packaged model weights (YOLO cfg & weights; CNN weights) to enable reproducible deployment.

AWS ETL Pipeline and Data Warehousing

05/2023 – 05/2023

- Built end-to-end ETL pipelines extracting data from CSVs, transforming into fact & dimension tables, and loading into a data warehouse using both **Python + PostgreSQL** and **AWS stack** (S3, Glue, Athena, Redshift).
- Designed a star schema with one fact table and four dimension tables, using product info and reviews datasets.
- Delivered two parallel implementations (local vs cloud) to demonstrate skill in both on-premises and cloud architectures.

Unstructured Data Streaming and Processing Using Spark and AWS

03/2025 – 03/2025

- Developed a **real-time data pipeline** using **Spark Streaming** to ingest and process unstructured data (CSV, JSON, TXT).
- Parsed TXT files with **regex** to extract relevant fields aligned with destination schema.
- Stored processed data in **AWS S3** as **Parquet files** for optimized storage and querying.
- Created **Glue Data Catalog** via **AWS Glue crawler** and loaded data into **AWS Glue database**.
- Performed **data analysis** using **AWS Athena** on structured tables for actionable insights.
- Demonstrated **end-to-end ETL workflow** for unstructured data to cloud-based analytics.

Stock Price Notification System

04/2023 – 04/2023

- Developed a **stock price monitoring application** enabling users to set price thresholds and receive **email/SMS notifications** upon threshold breaches.
- Implemented backend logic using **Python**, integrating with **financial APIs** to fetch real-time stock data.
- Utilized **SQLite** for lightweight, persistent storage of user preferences and notification history.
- Designed a **RESTful API** with **Flask** to handle user inputs and trigger notifications based on stock price changes.
- Deployed the application with **environment variable configuration** for secure and flexible operation.
- Demonstrated proficiency in **data engineering principles** and real-time alerting systems.

Benford Data Analysis

04/2023 – 04/2023

- Developed a **web application** using the **Python Pyramid framework** to analyze datasets for compliance with **Benford's Law**.
- Enabled users to **upload CSV files**, receiving **JSON outputs** indicating conformity to Benford's Law.
- Provided **detailed analysis pages** featuring **tabular comparisons** and **graphical visualizations** of first-digit distributions.
- Utilized **HTML/CSS** for frontend development to ensure an intuitive user interface.
- Demonstrated proficiency in **data validation**, **web development**, and **statistical analysis**.

Amazon Web Scraping and Visualization

01/2023 – 02/2023

- Engineered a comprehensive **web scraping pipeline** utilizing **Scrapy** to extract detailed laptop product data from Amazon.
- Employed **pandas** for meticulous **data cleaning** and transformation, ensuring high-quality datasets.
- Developed an interactive **data visualization dashboard** using **Jupyter Notebook**, incorporating **matplotlib** and **seaborn** to present insights on pricing trends, ratings, and specifications.
- Implemented effective **data storage solutions**, managing large datasets efficiently for analysis and reporting.
- Collaborated within a team, adhering to best practices in **version control** and **documentation**, ensuring maintainability and scalability of the project.
- Demonstrated proficiency in **data engineering** and **data visualization**, providing actionable insights into the laptop market.

LANGUAGES

English	● ● ● ● ●	Nepali	● ● ● ● ●
Newari	● ● ● ● ●	Hindi	● ● ● ● ●

ACTIVITIES

Project Supervisor <i>Khwopa college of Engineering</i> Served as Project supervisor for Bachelor students where I mentored and supervised minor project.	2025
Hackathon Judge and Mentor <i>Khwopa College of Engineering</i> Served as judge and mentor in first-ever college hackathon "Hack the Circle" organized by Khwopa college of engineering	2024
AWS Community Builder <i>Amazon Web Services</i> AWS Community Builder in Data Category from 2023 to present	2023
Class Representative <i>Khwopa College of Engineering</i> Served as class representative for 3 years during my undergrad studies.	2022