# YASH RAI

**SUMMARY** — Data Engineer specializing in scalable data pipeline development and big data technologies. Proven ability to optimize data workflows, enhance system performance, and reduce operational costs. Adept at leveraging cutting-edge tools to efficiently manage and process large datasets. Seeking to contribute technical expertise and innovative problem-solving skills to a forward-thinking organization.

### **TECHNICAL PROFICIENCIES**

Programming Languages: Python, SQL Cloud Services: Google Cloud Platform (GCP)

Big Data Tools: Apache Beam, Pub/Sub, Database Systems: BigQuery, Bigtable, Firebase,

Dataform, Dataflow, Databricks, NoSQL

PySpark Version Control: Git, GitHub, Jira

#### PROFESSIONAL EXPERIENCE

Clarity Feb 2024 – Jun 2024

Software Development Engineer Intern

 Developed a Customer Data Platform (CDP) web application that improved user data management, enabling better detection of events, payments, and fraud.

Engineered a real-time big data pipeline using Python and Apache Beam, processing over 5 million user events daily from Pub/Sub to BigQuery and Bigtable.

 Implemented an ETL pipeline to manage real-time data from Pub/Sub, process with Apache Beam, and store in BigQuery, reducing data handling costs by 10%.

BinPlus Technologies Nov 2023 – Jan 2024

UI/UX Developer Intern

- Worked on a **casino game project**, adding **Socket.IO** components to enable real-time gameplay connectivity.

- Developed **React components** to facilitate online gameplay interactions.

- Built a **betting website** from scratch for a client, integrating various APIs to enable dynamic user management.

 Implemented authentication and authorization mechanisms using Node.js, securing APIs with token-based authentication.

Abhyaz Dec 2022 – May 2023

Web Developer Intern

Worked on three different websites on the Zoho platform, maintaining and developing dynamic and responsive web applications using Zoho sites.

- Implemented various features and functionalities to enhance user experience, including **forms**, **calendar event markers**, and other interactive elements.

#### **EDUCATION**

## SR Group of Institutions, Jhansi

B. Tech in Computer Science & Engineering

2020 - 2024

**AKTU University** 

## **PROJECTS**

#### **Real-Time Streaming Data Pipeline**

Python, Apache Beam, Google Cloud Pub/Sub, Apache Kafka, BigQuery, Bigtable, Dataflow

- Developed a real-time streaming data pipeline: Engineered a pipeline to read data from Google Pub/Sub topics that are sourced from Apache Kafka. This project dynamically handles 20-25 topics.
- Utilized **Apache Beam** (Python) to create a data pipeline that **transforms and cleans** the incoming data.
- Dynamically writes the cleaned data into BigQuery tables according to the topic, ensuring appropriate data partitioning and schema management.
- For specific topics, data is additionally written into **Bigtable** for **high-throughput** and **low-latency** access.
- Deployed and managed the pipeline on Google Dataflow, ensuring real-time processing and monitoring.

## **Raw Data to Incremental Table**

Google Dataform, BigQuery

- Designed and implemented a raw data to incremental views pipeline: Used Google Dataform to read raw data from various sources.
- Transformed the data according to business requirements and created different views for different tables.
- Joined data from multiple views into a single **incremental table** for further **data analytics** purposes.
- Ensured **data integrity** and **accuracy** by applying necessary transformations and validations.
- Automated the pipeline to run at scheduled intervals, enabling **real-time data availability** for analytics.