

# Akshay Gupta Bursainya

IIT Guwahati | BTech | CGPA 8.38/10

[akshay.iitghy@gmail.com](mailto:akshay.iitghy@gmail.com) | +91 7896892257 | [linkedin/in/akshay-iitg](https://www.linkedin.com/in/akshay-iitg)

## WORK EXPERIENCE

**MERKLE SCIENCE** | SENIOR DATA ENGINEER -> LEAD DATA ENGINEER Bengaluru | June 2021 – Present

- **Designed & led the entire platform architecture** through innovative thinking and a deep understanding of problems, making it highly robust & horizontally scalable with **99.99%** up-time.
- Ideated & executed **4 database overhauls** in **Clickhouse & Tigergraph** with the adoption of standardized, simplified, & pre-aggregated schemas, adding more stability, efficiency, & performance, resulting in **an 80%** cost reduction while supporting **3-4x** data growth & consistently delivering sub-second query latencies.
- Redesigned & implemented **a real-time multi-hop** network exposure algorithm with **a P99 of less than 1 second** while utilizing **10%** of the infrastructure compared to before & improved explainability.
- Engineered *Harvester*, a high-performance, light-weight & unified blockchain data extraction framework, designed to simplify and accelerate future chain integrations. **15 chains** have already been integrated.
- Architected and executed a full-scale redesign of streaming pipelines, transitioning from Apache Beam + Pub/Sub to Kafka + KSQL. Later, engineered *Nimbus* a low-cost, horizontally-scalable framework enabling blockchain data transformation with **P99 < 1 second**.
- Expanded blockchain data coverage from **7 to 25 chains**, and token coverage from **300 to over 1000+**
- Leading ongoing **cost optimizations, system hardening, process improvements, and monitoring & observability platform** with Devops while ensuring business goals are consistently met.
- **Actively involved in cross-functional teams** planning & execution, driving scalable and efficient architectural designs while fostering collaboration and knowledge-sharing across teams.

**TESTBOOK** | ANALYST -> DATA ENGINEER -> SENIOR DATA ENGINEER Mumbai | July 2018 - June 2021

- Wore multiple hats to facilitate data-driven decisions. Transitioned the role from Analyst(Fresher) to setting up Data Engineering department with a 4-member team.
- Key member of Telesales Platform engineering team. Contributed in development of logical lead flow, database modeling and lead ingestion into platform leads into system with streaming & batch ETLs. The platform eventually contributed **30%** of revenue.
- Built an auto-scalable hybrid data ingestion service using PubSub (streaming) and Cloud Function (batch), replacing manual lead ingestion to support custom marketing campaigns.
- Designed and implemented a data-driven attribution strategy to track lead sources and their contribution to revenue, enabling marketing and sales teams to optimize customer acquisition efforts.
- Formulated a statistical algorithm for quantifying question difficulty, leveraging Apache Spark for scalable model training, reducing content curation time from **months to days**.
- Developed and maintained interactive dashboards using Redash, integrating multiple data sources (MongoDB, BigQuery, MySQL) to provide real-time insights and support decision-making across product and marketing teams.
- Developed personalized micro-service using Django to provide targeted (marketing) banners for users.
- Identified key reasons for significant engagement drop-out post sign-up. Insights helped reduce this number from 50% to 30%.

## SKILLS

**Languages:** Python, Java, Scala, Google Script, Go

**Databases:** Clickhouse, Tigergraph, BigQuery, Databricks, KSQLDB, MySQL, PostgreSQL, MongoDB, Redis

**Frameworks:** Airflow, Spark, Django, Pandas, Apache Beam, Kubernetes

**Queuing Systems:** Kafka, Google Pubsub

**Miscellaneous:** Google Analytics, Firebase, Redash, MetaBase, WebEngage, GCP, AWS, Github Actions, ArgoCD

## ACHIEVEMENTS

**Data Engineering Department** Started the data engineering department for Testbook.com.

**MITACS Globalink Research Intern** Selected in the prestigious internship program of Canada in 2017. Among 50 people selected from India

**McM Scholarship** Received complete tuition fee waiver from 2015-2018