

Work Experience

Software Development Engineer III

Jun 2022 - Current

Hevo Data, Bangalore

CDC Framework Project:

- *Ownership and Execution:* Led the complete implementation of real-time CDC framework using Debezium Engine (open source) which significantly enhanced data synchronization and ensured seamless real-time updates.
- *Performance Boost:* Achieved a 5x increase in data ingestion speed within the MySQL connector, optimizing system efficiency.
- *Database Interaction Optimization:* Engineered improvements in core database interactions, by implementing a metadata system that allowed us to scale our ETL platform by 15x.
- *Schema Catalog Service:*
 - a. Designed and built a generic schema service from scratch to manage and validate data schemas in ETL pipelines, with seamless integration and testing using Debezium connectors.
 - b. Supported source-specific features, including handling unchanged toast datum from PostgreSQL and diverse data types from various data sources, ensuring flexibility across different ETL environments.
 - c. Implemented schema versioning, metadata management, and compatibility checks to maintain data quality, streamline data processing, and accommodate schema evolution.

System Optimization and Security Enhancements:

- *Source Object Generation Flow:* Optimized the source object generation process, resulting in a 10x improvement in pipeline performance, enabling support for larger datasets.
- *REST API Security Enhancements:* Enhanced the REST API connector by implementing OAuth 2.0 authorization, improving security and user management.

SurveyMonkey Connector Development:

- Spearheaded the development and launch of the SurveyMonkey connector, contributing to the expansion of Hevo's connector ecosystem.

Critical Customer Issue Resolution:

- Managed and resolved several complex customer issues for key clients, significantly improving customer satisfaction.

Innovative System Enhancements:

- *Real-time Logs Implementation:* Implemented data governance tool to handle PII redaction in near real-time using AWS S3 and AWS Comprehend, ensuring data privacy and enhancing user experience.
- *Microservices and Task Execution:* Worked on integrating a microservices architecture on AWS Fargate and implemented a Temporal-based task execution system, improving reliability and streamlining hierarchical DAG processes.

Documentation and Knowledge Sharing:

- Regularly contributed to improving documentation quality and conducted knowledge transfer sessions, fostering team collaboration.

Software Development Intern

Sep 2021 - Oct 2021, Feb 2022 - Mar 2022

Hevo Data, Bengaluru

- Added support for 'wal2json' output plugin for postgres logical replication.
- Reduced WAL processing time taken by the platform, by **60%**.
- Implemented OAuth 2.0 feature for accessing protected Rest APIs.
- Ensured stability by benchmarks and unit tests.

Software Development Intern

Jun 2021 - Aug 2021

MTX Global, Hyderabad

- Worked on curating ETL data pipeline from concept to proof of concept.
- Implemented on-demand data transformations using Apache Spark, and streaming the same using Apache Kafka onto Google Cloud Platform.
- Containerized individual components of the pipeline for better development and deployment. Solely configured and maintained pipeline on Google K8s Engine.
- Orchestrated data visualization service to configure overlaid charts.

Full Stack Developer Intern

Apr 2021 - May 2021

Triomics, Gurugram

- Collaborated with the core founding team on the initial stages of the platform.
- Setup infrastructure for the applications, keeping scalability and security into account.
- Developed management dashboard service for micro and macro level user access across the apps.
- Customized D3 for visualization of data, fitting our use case.

Work Experience

Software Development Intern

Oct 2020 - Mar 2021

Rephrase.ai, Bengaluru

- Ensured stability of the product by integrating tests and error handling.
- Optimized uploading and validating data from user's end.
- Implemented Stripe, Sentry, Clickup for better development cycle.
- Integrated continuous integration and ensured continuous delivery among various services.

Software Development Intern

Apr 2020 - Jun 2020

Powerplay, Bengaluru

- Implemented core features and structure from concept through deployment.
- Introduced REST APIs, server-side pagination and JWT based authentication system.
- Standardized UI libraries by enclosing them in highly customizable wrapper for code reusability. Assessed UX and UI designs for technical feasibility.
- Developed standard and ad-hoc report in table format.
- Collaborated with product team members to implement new feature developments.

Projects

ScraperQL

Oct 2020

<https://scraper-ql.vercel.app/>

- Web scraper using recursive power of GraphQL.
- Created in NodeJS and is hosted as an API service.
- Integrated GraphQL to run scrape queries.

Kill-Zee

Jan 2020

<https://github.com/adrijshikhar/kill-zee>

- A small tactical game in Lua to kill zombies and protect your tower before it is too late.
- Spearheaded and implemented the underlying core features and worked on performance optimization.

Issue Labeler Bot

Sep 2020

<https://github.com/sdslabs/SDSLabs-Issue-Labeler>

- ML-bot to automate the labelling of issues on Github by critical analysis of its content.
- Generated training dataset by scraping around 20,000 issues on Github.
- Fine-tuned the Google Bert Model on the dataset. Exported the trained model to integrate it with the Github bot.

CodeRunner 2.0 | SDS Labs

Oct 2019 - Mar 2020

- Implemented core functionality CLI and exposed as API. Designed central agent to govern micro services, optimize cost & increase reliability. Added GRPC server to spawn runners in docker environment with custom log factory.

Education

Chemical, B. Tech.

Jul 2018 - Jul 2022

Indian Institute of Technology, Roorkee

References

Tariq Iqbal | Senior Engineering Manager - Atlassian

contact info: [linkedin.com/in/ta-riq](https://www.linkedin.com/in/ta-riq)

Shubham Goyal | CTO - Powerplay

contact info: [linkedin.com/in/shubham7stark](https://www.linkedin.com/in/shubham7stark)