

# Pranjal Upadhyaya

## Data Engineer

Results-oriented Data Engineer with nearly 3 years of experience designing, building, and optimizing large-scale data systems in cloud environments. Highly proficient in Python, SQL, and AWS, with hands-on expertise in developing robust APIs, architecting microservices, and creating scalable data pipelines that process multi-terabyte datasets daily. Demonstrated success in database optimization, achieving significant performance and storage improvements, and leading cross-functional teams to deliver high-impact solutions. Adept at leveraging advanced ETL frameworks, modern cloud platforms, and best engineering practices to drive data-driven decision-making and business value.

## Experience

### Data Engineer (April 2024-Present)

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Fulltime | 1 year 2 months

- Developed and maintained 100+ APIs, contributing extensively to API development initiatives.
- Designed, built, and maintained multiple scalable data pipelines using Dagster, ingesting and processing multiple terabytes of data on a daily basis.
- Worked extensively with PostgreSQL and ClickHouse databases, overseeing database maintenance and optimization.
- Utilized database systems for advanced data analysis to support business decision-making.
- Gained extensive hands-on experience with AWS, deploying and maintaining cloud resources to ensure secure, scalable, and reliable infrastructure.
- Led end-to-end development of high-volume data pipelines to ingest and transform AWS Cost and Usage Reports (CUR), analyzing and processing multi-terabyte datasets for storage in PostgreSQL and ClickHouse databases.
- Optimized database performance through partitioning, indexing, and distributed processing strategies to efficiently handle massive data loads.
- Designed and implemented fault-tolerant ETL workflows using Dagster, ensuring data integrity across a microservices architecture.
- Developed the entire API infrastructure for fetching multi-terabyte AWS CUR data stored in PostgreSQL and ClickHouse databases.
- Optimized large customer-facing APIs to achieve response times of less than 100 milliseconds by implementing advanced query optimization techniques and strategic indexing on frequently queried database columns.
- Led the end-to-end development of cloud cost calculation modules, overseeing both data pipeline and API development and maintenance, and managed a team of 4 developers to deliver robust, scalable solutions for accurate cloud cost analytics.
- Collaborated as part of a four-member team to optimize database systems, achieving a 75% reduction in database size through data migration, targeted data deletion, and API modifications for compatibility with the streamlined data structure.

## Personal Information

### Current Address

Bangalore, Karnataka, India

Renukoot, Uttar Pradesh, India

### Phone

+91 9763953468

### Socials

[rktpranjal@gmail.com](mailto:rktpranjal@gmail.com)

[www.linkedin.com/in/pranjal4107](https://www.linkedin.com/in/pranjal4107)

[github.com/pranjal-upadhyaya](https://github.com/pranjal-upadhyaya)

### Experience

2 year 11 months

## Technical Skills

Python	Pandas, NumPy, SQLAlchemy, Flask, FastAPI, Selenium
Databases	PostgreSQL, ClickHouse, MSSQL, MySQL
Cloud	AWS (EC2, S3, RDS, EBS, ELB, ECS)
Data Engineering	Dagster, ETL, Data Pipelines
DevOps/Tools	Docker, Kubernetes, Git, CI/CD

# Experience

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## Data Engineer (July 2022-March 2024)

*Oceanfrogs*

Fulltime | 1 year 9 months

- Created Selenium based web scrapers to extract data from various websites.
- Created and maintained python based data pipelines.
- Heavily involved in data cleaning and feature engineering.
- Frequently undertook DB migrations and optimizations to improve data quality and consistency.
- Created custom dashboards and data extraction tools for visualizing and analyzing data using Appsmith. These were used by the sales team to close deals.

## MS Researcher (May 2019-March 2020)

*Inter University Center for Astronomy and Astrophysics, Pune*

Fulltime | 1 year

- Performed Data Analysis of Stochastic Gravitational Wave Background.
- Solved complex mathematical problems and learned to use Python in solving problems pertaining to statistics.
- Learned advanced linear algebra and algebraic geometry during the MS project.
- Thesis: [Improving the Radiometric Search of Stochastic Gravitational Wave Background with a Natural Set of Basis Functions](#)

# Education

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## Bachelor & Master of Science (BS-MS): Physics

Indian Institute of Science Education and Research, Pune

2015-2020

## Higher Secondary

Bhavan's K.D.K.V.M, Renukoot

2013-2015

# Soft Skills

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- **Team Management:** Effectively coordinate and motivate team members to achieve project objectives and maintain high productivity.
- **Leadership:** Guide teams through complex challenges, fostering a collaborative and innovative work environment.
- **Problem Solving:** Approach technical and operational issues analytically to develop efficient, scalable solutions.
- **Communication:** Clearly convey technical concepts to both technical and non-technical stakeholders, ensuring alignment and understanding.
- **Project Management:** Plan, organize, and oversee project execution to ensure timely delivery and quality outcomes.
- **Documentation:** Maintain comprehensive and clear documentation to support ongoing development, knowledge sharing, and process improvement.

# Achievements

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- JEST: Qualified Joint Entrance Screening Test with AIR 146 in 2022
- Inspire Fellow: 2015-2020