

# Tanmoy Munshi

Assistant System Engineer

Tata Consultancy Services, Kolkata

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## EDUCATIONS

### Narula Institute of Technology, Kolkata

B.Tech (Electronics and Communication Engineering)

06/2017 – 06/2021

Cumulative GPA: 8.78/10

### Kendriya Vidyalaya Barrackpore Air Force Station

4/2005 – 05/2017

10<sup>th</sup> Standard, CBSE

Percentage: 8.2 CGPA

12<sup>th</sup> Standard, CBSE

Percentage: 72.8 %

## WORK EXPERIENCE

### Data Engineer & Analyst

Tata Consultancy Services, Kolkata

07/2021 – Present

- Developing solutions for **UK Biggest MFG Utility** companies Data Lake (Approx **5 Billion Data** inflow every day).
- Conducted a thorough **compatibility analysis** of various data sources with the business requirements for the new Data Warehouse Design.
- Designed and implemented a robust **Data Ingestion solution** leveraging AWS and Snowflake technologies for the new data warehouse. This solution enables near real-time data ingestion with exceptional accuracy, seamlessly handling a **high volume of data**, processing over **500,000 files** daily into the Data Lake.
- Designed and Implemented **scalable and robust Data Lake Architecture** tailored to meet the organization's specific needs. Collaborated closely with clients to deeply understand their requirements and delivered strategic solutions that precisely aligned with their objectives.
- Developed multiple reporting jobs for clients, catering to a **customer base of 10 million**. These jobs include **5 high-priority assignments** that have a significant **direct impact** on the client's **revenue**, in addition to reports related to **supply and operations**.
- **Reduced** project **cost** and time of batch run by optimizing code and automating daily processes
- Streamlined and **automated 80%** of manual tasks in the project, resulting in increase of operational efficiency and significant time savings.
- Successfully executed **22+ POC's** solutions, showcasing the feasibility and effectiveness of proposed approaches
- Developed an application using **PySpark** which can **process 900 million** data in DataLake.
- Worked on DataWarehouse **migration** which involved **5 Million data and 5000+ tables** from **Redshift to Snowflake**. And completed within 6 Months.
- Designed and Implemented **Scheme of Access (SOA)** in Customer Data Warehouse. Following RBAC approach
- Actively working on **SAP to Kraken Migration** like **Data Modelling** and Application Development
- Worked on different AWS services like EC2, Redshift, Data Pipeline, Lambda, S3, Athena, Glue, Lake Formation, Matillion, Hadoop, Apache Spark, ETL/ELT tools, SQL/PLSQL, GIT, AWS SDKs (Boto3) and EMR, CI/CD pipelines etc.

### Technical Intern

West Bengal State Electricity Distribution Company

01/2020 – 02/2020

- Business Integration and Customer data Analytics, Demand & Supply Projection Daily Dataset.
- Worked on Vehicle tracking in house software

### Summer Intern

Hindustan Aeronautics Limited, Barrackpore

06/2019 – 06/2019

- Communication Systems and Radio Instruments of Chetak and Cheetah Helicopters
- Worked on ADF (Automatic Direction Finder) System of Chetak and Cheetah Helicopters
- Made a demo project "Beacon Signal Transponder" using Arduino.

## SKILLS

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*AWS Cloud Services, Snowflake, Python, SQL/PLSQL, Data Analytics, Data Science, Matillion, Building & Designing Cloud Architecture, Data Warehousing, PySpark, Data Governance, Data Modelling, Tableau (Basic), EC2, Redshift, CI/CD Pipeline, Step Functions, Lambda, S3, Athena, Glue, Lake Formation, ECS/EKS, Matillion, Hadoop, Apache Spark, ETL/ELT tools, EMR*

## ACHIEVEMENTS

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- National Level Winner (1<sup>st</sup> Position) of National Level Hackathon, BENGALATHON 2019-20. **(Awarded 5 Lakh).**  
*Built **World's First** most affordable EOG (Eye Controlled) Based Wheelchair for Quadriplegic Patients*
- National Level Winner of Smart India Hackathon 2020  
*Made a project Standalone IoT based Smart Farming device using daily Evapo-Transpiration data  
Winner in MSME (Govt. of India) Category.*
- TCS Innovation and Improvement 2022 Award Winner
- TCS On-Spot Award for Automating 80% of manual process
- TCS Star of the Month for Client Delivery

## Patents & Publications

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- Electrooculogram Signal Acquisition System (Application no. : 201931037381) (*Published: 2019*)
- Electrooculogram Signal Controlled Wheelchair (Application no. : 201931050774 A) (*Published: 2019*)
- An Automated System Having Bag Valve Mask (Application no. : 202031037602) (*Published: 2019*)
- Utilizing Convolutional Neural Networks to predict COVID Infections in Individuals (Turkish Online Journal of Qualitative Inquiry)
- Classification of Emotions using Voice Signal-A Non-Linear Signal Processing Approach (SSRN Journal)

## Certifications

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- Oracle Cloud Application Foundation Associate by Oracle
- Python for Data Science by IBM
- Natural Language Processing in TensorFlow by Coursera
- Big Data Analytics with Hadoop and Apache Spark by Udemy

## Interests

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*Aviation Photography, Reading, Listening to Music, Travelling, Writing in Quora, Seeking Discomfort, Love to make personal projects*