# **Yash Thakar**

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#### **Education**

# B.Tech Computer Science & Engineering - Data Science [Honors in Computational Finance], DJSCE, University of Mumbai (CGPA: 8.36/10) HSC, 12th Board Examination, Nirmala Memorial Foundation Junior College (96.5%) 2021 SSC, 10th Board Examination, Thakur Vidya Mandir High School (93.2%) 2019

#### **Experience**

#### Data Engineering Intern - Pay with Ring

Jun 2024 - Aug 2024

- Developed Python scripts to facilitate the migration of an existing data warehouse from Snowflake to ClickHouse.
- Enhanced a production-grade tool with AWS Lambda Functions, improving error handling and operational efficiency.
- Implemented a scheduled AWS Lambda function with Airflow to manage a proof-of-concept warehousing cluster, reducing off-hour operational costs.
- Created dashboards of AWS billing data, providing clear insights into high-cost areas for cost optimization.

#### AI/ML and Back-end Intern - Lawyantra

Nov 2023 - Feb 2024

- Introduced 60+ subcategories for automated case classification in Lawyantra's Gen-Al platform.
- Developed a Lawyer Ranking System architecture and integrated it with the Django REST framework and MySQL.
- Migrated the company's file storage system from AWS EC2 instance store to AWS S3, mitigating data loss risks.

#### **Projects**

# **Fleet Structure Optimization**

- Developed a multi-objective optimization algorithm integrating TOPSIS with NSGA-II to minimize fleet costs and carbon emissions over a 16-year horizon.
- Achieved a 28.37% reduction in total cost and 39.95% lower emissions compared to vanilla NSGA-II algorithm.
- Reduced runtime by 36.2% using Python multiprocessing after parallelizing the algorithm.

#### AirViz - Big Data Pipeline

- Developed a data pipeline for ETL to transfer data from Amazon RDS (PostgreSQL engine) to an AWS Redshift data warehouse using AWS Glue and a spark runtime in AWS.
- Visualized airline flight schedules, airport connections, and airline delays and cancellations using PowerBI.

#### Olist's E-commerce insights

- Unveiled insights and trends from the Olist data and derived customer segments using RFM analysis.
- Developed ML models for customer segmentation, sales prediction, churn classification, and sentiment analysis.

# **Achievements**

# Top 20 at TIAA AI T3 Hack Hackathon:

Our team reached the semifinals and achieved a Top-20 ranking nationally at the Retirement Industry AI Hackathon: T3 Hack, a national-level competition organized by TIAA with over 2000 participants.

# **Research Published in IEEE Xplore:**

We presented a paper titled "Performance Analysis of Hybrid Quantum-Classical Convolutional Neural Networks for Audio Classification" at 15<sup>th</sup> ICCCNT, IIT Mandi, in which we developed a QC-CNN architecture to perform audio classification using mel-spectrograms and achieved comparative performance with classical models.

# **Skills**

Languages: Python, SQL, C

ML and AI: Scikit-learn, TensorFlow, Pytorch, Langchain, Qiskit, Time Series Analysis, Deep Learning, CV, NLP Data Science: Excel, Tableau, PowerBI, PySpark, Pandas, NumPy, Matplotlib, Seaborn, Plotly, Selenium

**Frameworks & Databases:** Django, Flask, MySQL, PostgreSQL **Others:** AWS, Git, GitHub, Postman, Netlify, Streamlit, Figma

## **Extra-curriculars**

**Chairperson** - DJSCE Compute

Jun 2023 - Jun 2024

Lead a team of 20+ mentors and 60+ mentees to learn and build Machine Learning, Webdev, and App Dev projects.

Academic Mentor - We Can We Will Foundation

Jun 2023 - Aug 2023